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THE SPHERE, MAY 29, 1943
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THE SPHERE

Vol. CLXXIII No. 2262 WITH WHICH IS INCORPORATED THE GRAPHIC MAY 29 1943

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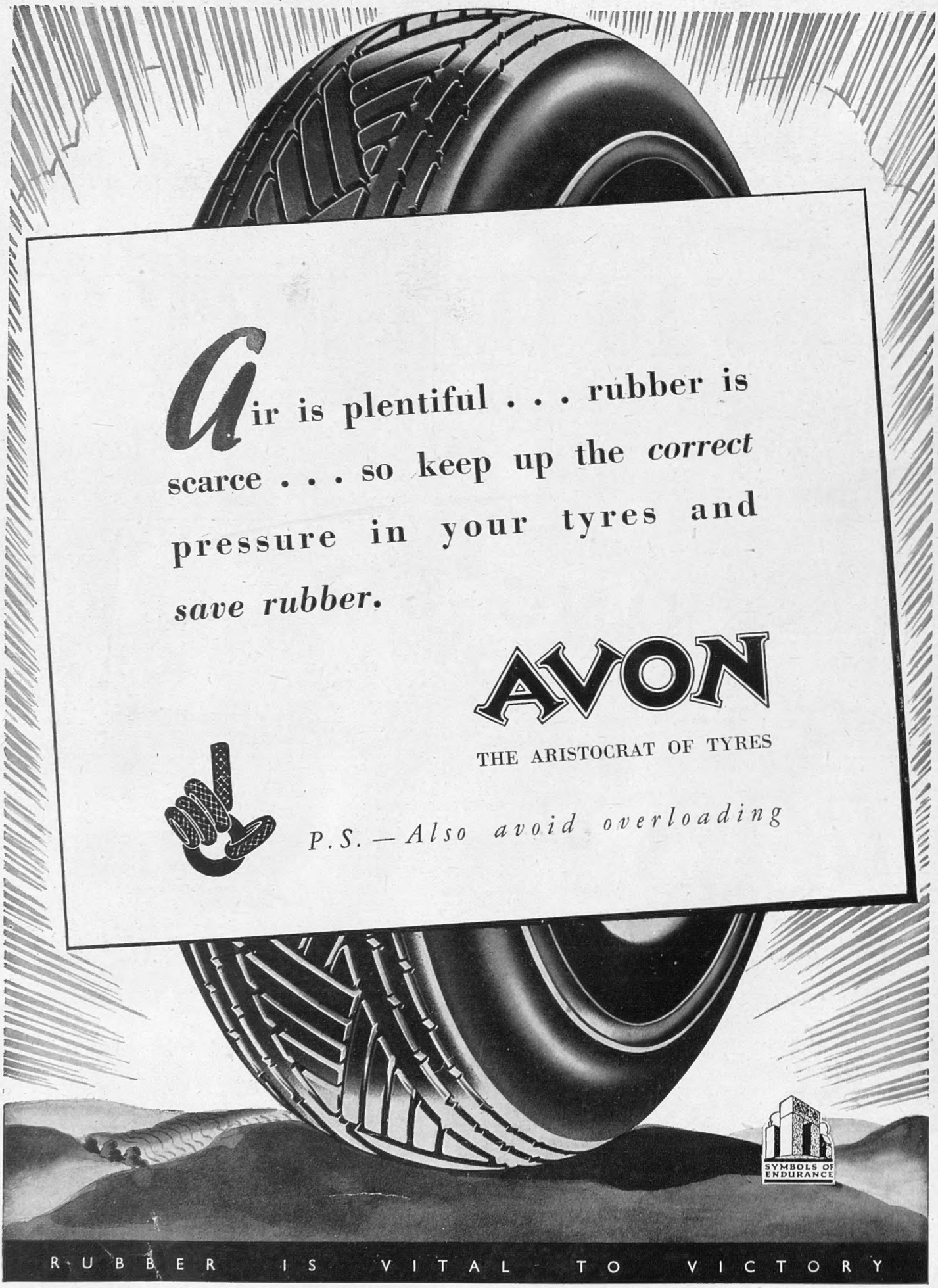
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Volume CLXXIII No. 2262 The SPHERE, London, May 29, 1943

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly

THE R.A.F. ATTACK ON THE GERMAN DAMS: HOW THE TOWN OF KASSEL BECAME AFFECTED BY THE BREACHING OF THE EDER DAM—An official Air Ministry photograph taken by a reconnaissance aircraft on May 18 (*See also pages 266-7 of this issue*)

As the floods from the breached German dams swept over the countryside, many towns in the vital Ruhr area soon became inundated. Among the first important industrial centres to be affected was the town of Kassel, approximately 30 miles downstream from the Eder Dam. It has a population of more than 200,000, and manufactures aircraft, locomotives and U-boat engines. The great tide of water from the Eder Dam gushed through the Eder Valley and caused the River Fulda to overflow its banks. The low countryside surrounding Kassel was very soon swamped and the water then seeped through the town, particularly affecting the low-lying district of Unter Neustadt, which is inundated, and the Karlsane Park. Property, roads, communications, industrial installations, power plants and the railway line have also been damaged by the flood. This photograph, taken on May 18 (the day after the attack on the dams), shows the following: **1**—River Fulda; **2**—a road bridge; **3**—Draht Bridge; **4**—Königs Platz; **5**—Unter Neustadt; **6**—Friedriche Platz; **7**—Karlswiese Platz; **8**—Wolfsanger district; **9**—the swollen River Fulda overflowing its banks; **10**—flooded areas; **11**—submerged main roads; **12**—submerged main roads; **13**—flooded railway track to river docks; **14**—Karlsane Park; **15**—flooded fields; **16**—power station; **17**—river docks

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A WAR NEWSLETTER —No. 195

1, NEW OXFORD STREET, W.C.1.

113 for the Loss of 1.—

There is a lull on land at the moment of writing—in Africa, where there are no worlds to conquer, in Russia, where it is quiet before the storm, and generally on the Continent of Europe, where the Nazis are clearly not getting the best of a war of nerves. But in the air it is active enough, and the everlasting battle of the oceans never relaxes, even when least is heard of it. It is the air (of which we hear most to-day) that supplies us with most food for reflection and speculation. The yardsticks with which we measure success in air warfare are a motley, contradictory bundle. How many planes of various types does the enemy possess? What is his present power of replacement in men and material? The answers we receive are often contradictory. We read of "air slaughters" like the recent bloc liquidations of those Ju. transports, or that 113—1 holocaust over Sardinia and Sicily, and we ask ourselves how long can an enemy endure such losses. We remember that in the days of Nazi air supremacy the loss of 170 planes in a day was enough to call off an almost-won Battle of Britain. (In two days in May 1943 in the Sicilian Islands we bagged 270 for the loss of 7.) Five thousand planes is a figure offered of their losses in the African campaigns, and on the day-to-day figures given us it does not sound exaggerated. Are the trained crews to equip 5,000 bombers and fighters (perhaps 20,000 men) replaceable "in the stride" of present Nazi war potential? We remind ourselves that our bomber command can philosophically view the loss of 35 bombers and their crews, perhaps on four nights in a single week of continuous attack. We know that the loss of 200 trained airmen in a week is achieving far more damaging results than did the loss of 3,500 infantrymen on the Somme in 1916–17 in a wee c. But what is the scale of the Empire training scheme, what the output of planes here and in the U.S.? And what the corresponding figures to-day in Germany? I take it that selection for the air force is still far more rigid than for the infantry or R.A.C., the tests of health and temperament more severe, the percentage of rejection much higher. After four years of war and manpower exhaustion, is the recruitment problem growing more difficult? These are a few of the average man's speculations. I often wish one or other of those clever R.A.F. broadcasters would throw some authorised light on these matters. How long can Germany stand the present scale of air losses at the hands of Britain, America and Russia? All we know for certain of the present air warfare over the Narrows is (*a*) that we are engaged in making these Narrows safe for sea transport along the African shores of the Mediterranean, and (*b*) that we have already well begun the first phase of the attack on the underbelly (or "Second Front"). We are ensuring once more that air domination for the Allies, without which neither Alamein nor Tunis could have been won, without which no allied soldier can put a foot on European soil, save as a prisoner. But whether we are bleeding the Axis white in Air Power or merely forcing the Axis to yield air domination here or there, for the sake of conserving large air reserves for other uses in attack or defence, *that* we cannot judge for ourselves—on the facts before us.

Premier to Congress.—

There is much more than the art of oratory in a speech by a Panjandrum in wartime. The *matter* is far more important than the manner. Thus Mr. Churchill, addressing the U.S., will stress one point to the eclipse of another, while, when addressing himself to the U.S.S.R., he will eclipse the one and stress t'other. Obviously, his Congress speech was more pleasing to Americans than to Russians, for he promised full co-operation, and undeferred, in all efforts to scotch the Japanese snake, while he stressed rather the difficulties than the imminence of those descents on Europe which the Russians need, expect and demand before the summer campaigns on the Eastern Front are well launched. An orator in war is like a popular newspaper editor—he gives his public what it wants, and both are aware that one can't please everybody. That, at least, is how his Congress speech struck me: pleasing to American ears, slightly disappointing to Russian ears. But, no doubt, Stalin is well informed of what we propose and where and when, and need not worry his head over the arts of political and propaganda oratory, of which he knows a good deal. As, indeed, does Dr. Goebbels, who is a master of the technique of selecting his matter to suit his audience. The Premier's speech had an excellent Press, as usual, and we learned with satisfaction that our indispensable leader is in good heart, good health and good form in his second spiritual home. The affair marches. The experiment of ending the European War by air bombing is certainly "worth trying," always provided that it does not hold up that other adventure which is a *sine qua non* in the text-books of all the Allies, if unconditional surrender is to be achieved before civilisation is liquidated and Allied unity compromised.

Bedammed.—

There is evidence that Sir A. Harris has been reading Shakespeare in his spare time. Or *mis*-reading it. "Lay on, Macduff. And damned be he who first cries 'hold! enough!'" He has been "laying-on" with a vengeance and has shown no desire to be first to cry "hold! enough!" On the contrary, he believes the Nazis will be first with *that* news; but instead of damning them, he has taken to undamming them. Anyway, Shakespeare's *Macbeth* clearly gave him the big idea. This was an operation to warm the heart and uplift the heart of the least enthusiastic bombing fan. A Zeebrugge of the Air, as meticulous in the planning as it was brilliantly successful in the execution, calling for superb courage, coolness and skill. And in its results clearly as shrewd a blow at the enemy's power to do us evil. For without water power and water transport, the Ruhr is Samson shingled or Hamlet without the Prince. The great stroke has clearly crowned the efforts of the last two months to decimate the resources of the Nazis' chief centre of war output, and it was a stroke which relied entirely on precision and gave no hope to indiscriminate or "chance" bomb-slinging. This should please Stalin, as it pleased me, and more than a 1000-bomber raid on Berlin. Three great dams were blown; three vast reservoirs emptied of their resources which poured through the breaches made in their walls. The great dams, storing hundreds of millions of tons of water, the Mohne, the Sorpe and the Eder, are all breached and useless, and their contents have caused hell to break loose in the teeming valleys below them. Wing Commander Gibson led the attack. We take our hat off to him and to all concerned in the plan.

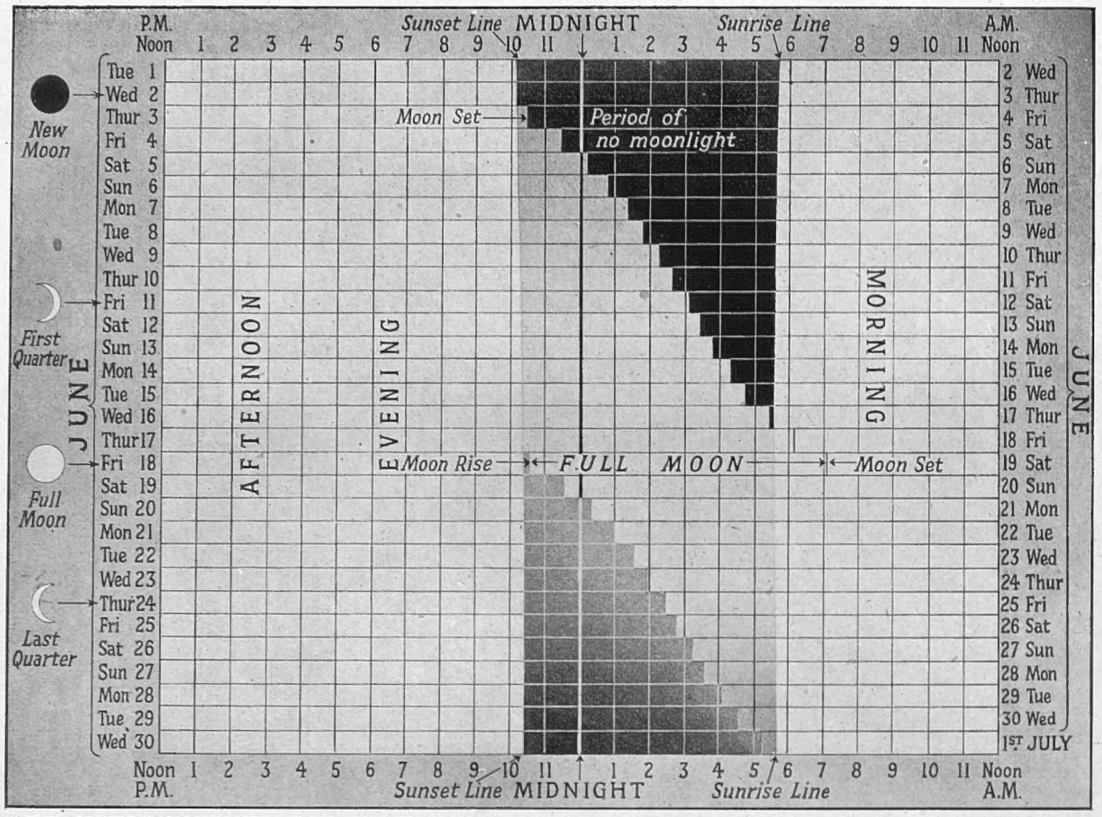
A Great Chance for the House of Savoy.—

With rumours of the intention of the King of Italy to abdicate in favour of his son, come pointers that Mussolini's star and influence are on the wane, as an anxious, discontented and disillusioned nation seeks for leadership in its trials and turns again to its Royal House which, if it swallowed Fascism to preserve its dynasty, has had clearly but a small share in the misfortunes which Fascism has brought on the country. The descendants of Humbert the Whitehanded of the eleventh century ruled as Dukes of Savoy and Piedmont since 1400, and as Kings of Sardinia since 1720. They became Kings of United Italy only in 1861. The present King—Emperor no more—wore his Fascist purple with obvious doubt and discomfort, while his son, the Crown Prince, was never comfortable either with Mussolini or the Fascist regime, even in the brief years when Fascism paid a dividend and promised a melon. The King is a clever, enlightened, liberal man, if insignificant in person and tired or weak in character. The Crown Prince is of a more vigorous and decided character. The Italians are a people who respond to leadership. Their present is bleak. Their future dark and obscure. If the House of Savoy has red blood in its veins, this hour is an opportunity for the Crown Prince, to strike a blow for his House, for the system of monarchy, and for Italy, a country which must not die. Somehow or other, in the months to come, its lilies must raise their heads from the thick slime of Nazism and dry them in the sun of a civilisation which is prepared to forget and forgive a decent people who have slipped into the gutter from political weakness and apathy.

Home Guard Sunday—an Eye-opener.—

I have lived and worked among the Home Guard in a rural area since the day of its birth, but latterly I have specialised in certain forms of training and have had less opportunity to observe and note the general progress of my own battalion. In the hundreds of parades held on Home Guard Sunday throughout the land, I am convinced that the public and the Regular Army had many eye-opening experiences. I confess myself to have been knocked over by the proofs I saw in my own unit of progress to efficiency. I fancy that rural areas still afford fewer opportunities than urban areas for training, and what I saw of my own very rural battalion convinces me that *en bloc* the Home Guard to-day is indeed a force to be reckoned on, and reckoned with. With vivid memories of three years of endeavour, I saw on the parade ground and the arena a miracle unfolded before my eyes. Discipline on parade, discipline in action; a force well equipped, adequately armed, with a good knowledge of its weapons, well led, quickly responsive to orders, seasoned and sure of itself. I saw strong-points cleaned up in the modern manner, mortar fire of 100 per cent. accuracy, signalling and communications of adequate efficiency, parade drill and discipline which revealed confidence, pride, *esprit de corps*, and, above all, a thorough, barrack-square apprenticeship. For the first time I heard, without a tremor of doubt, those warnings of the pundits that henceforth the Home Guard must be prepared to play a bigger role and stand on their own feet without the ready help of their big brothers. For the first time I saw the Home Guard not as a paper army, but an army in being.

THE OLD STAGER



"THE SPHERE" MOONLIGHT CHART FOR THE MONTH OF JUNE, showing the period of no moonlight and the period when the moon will be at the full

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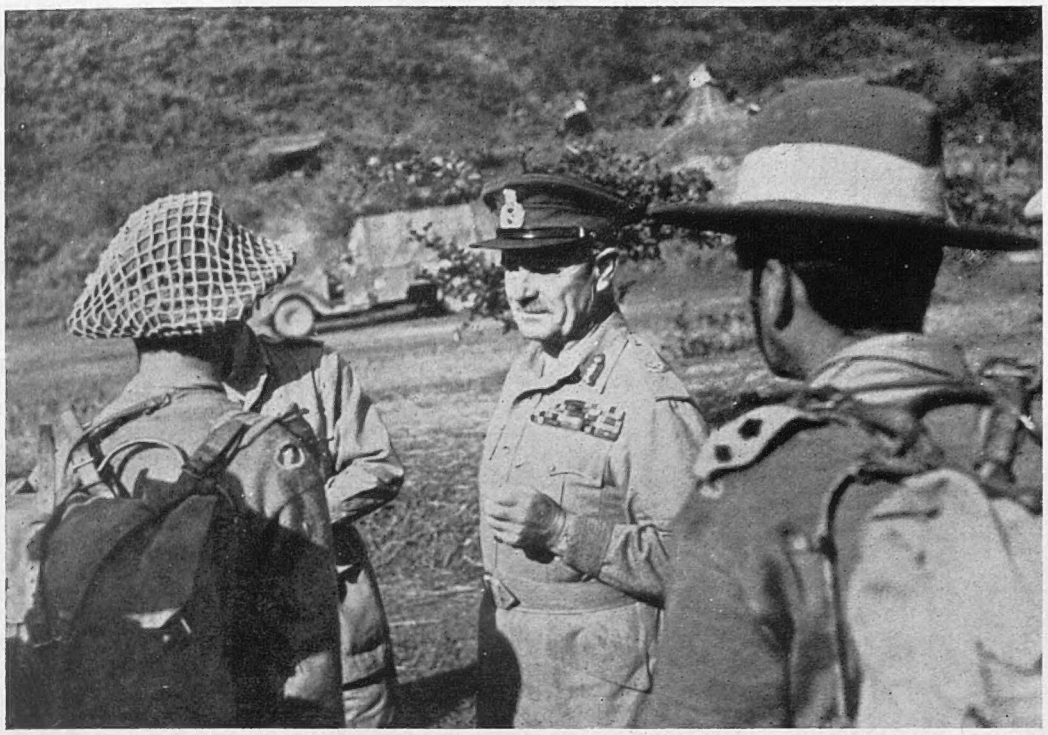
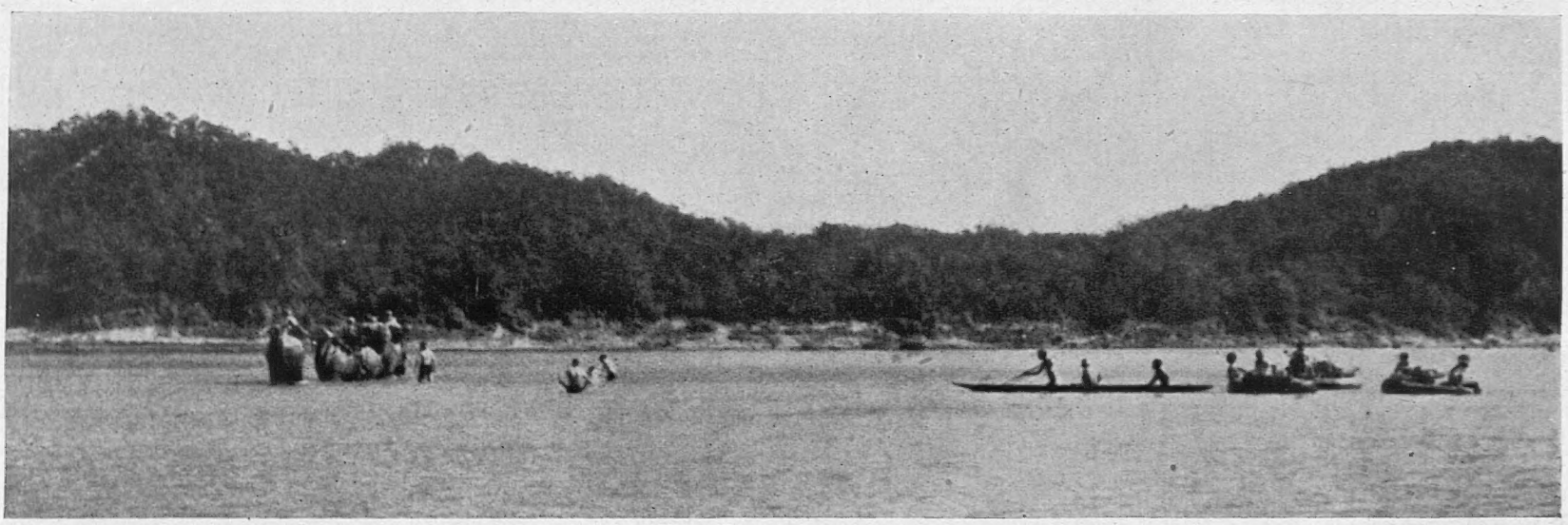
THREE MONTHS in the HEART of the BURMESE JUNGLE in the REAR of the JAPS

—The Exploits of the "Chindit" Long-Range Penetration Group Led by Brigadier Wingate, Whose Story Has Only Just Been Told

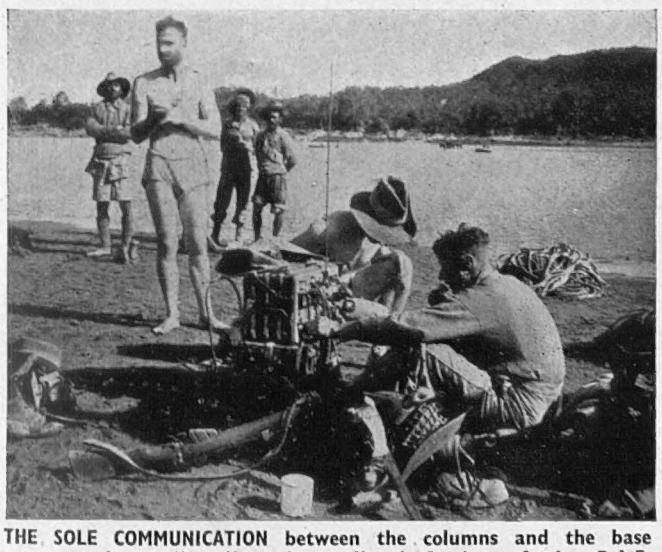


JUST BEFORE THE "CHINDIT" GROUP LEFT HEADQUARTERS FOR THEIR LONG ABSENCE IN JAPANESE-HELD BURMA: Field-Marshal Sir Archibald Wavell inspects the men as they set off to range over thousands of square miles of the Burmese interior for a period of three months

MULES AND ELEPHANTS were used as the main method of transport. There were 1,000 of the former: the latter carried much of the heavy equipment, which included mortars, machine-guns and tommy-guns



THE CROSSING OF THE FORD OVER THE NOW-FAMOUS CHINDWIN RIVER. The elephants waded over, the men made the crossing in small boats and rubber pontoons. Then they continued a penetration which took them 200 miles deep into enemy-held territory



THE SOLE COMMUNICATION between the columns and the base was by radio. Here is a Signal Section of the R.A.F. (attached to one of the columns) at work

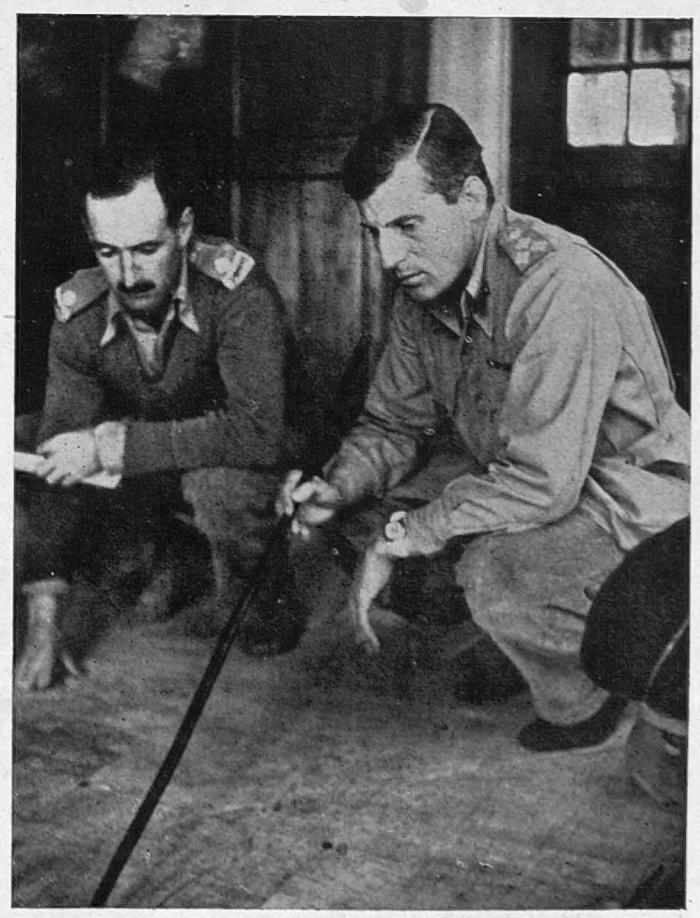
THE PRESS PARTY which accompanied the "Chindit" force into the Burmese jungle, with their "Conducting Officer." Each journalist had, perforce, to carry his own personal kit

It was only a few days ago that the amazing details were released of the astounding raid which lasted for three months against the enemy in the heart of Japanese-held Burma. This was the biggest operation of its kind this war has known: during the course of it a penetration of nearly 200 miles was made, and the force concerned ranged over thousands of square miles of the Burma interior.

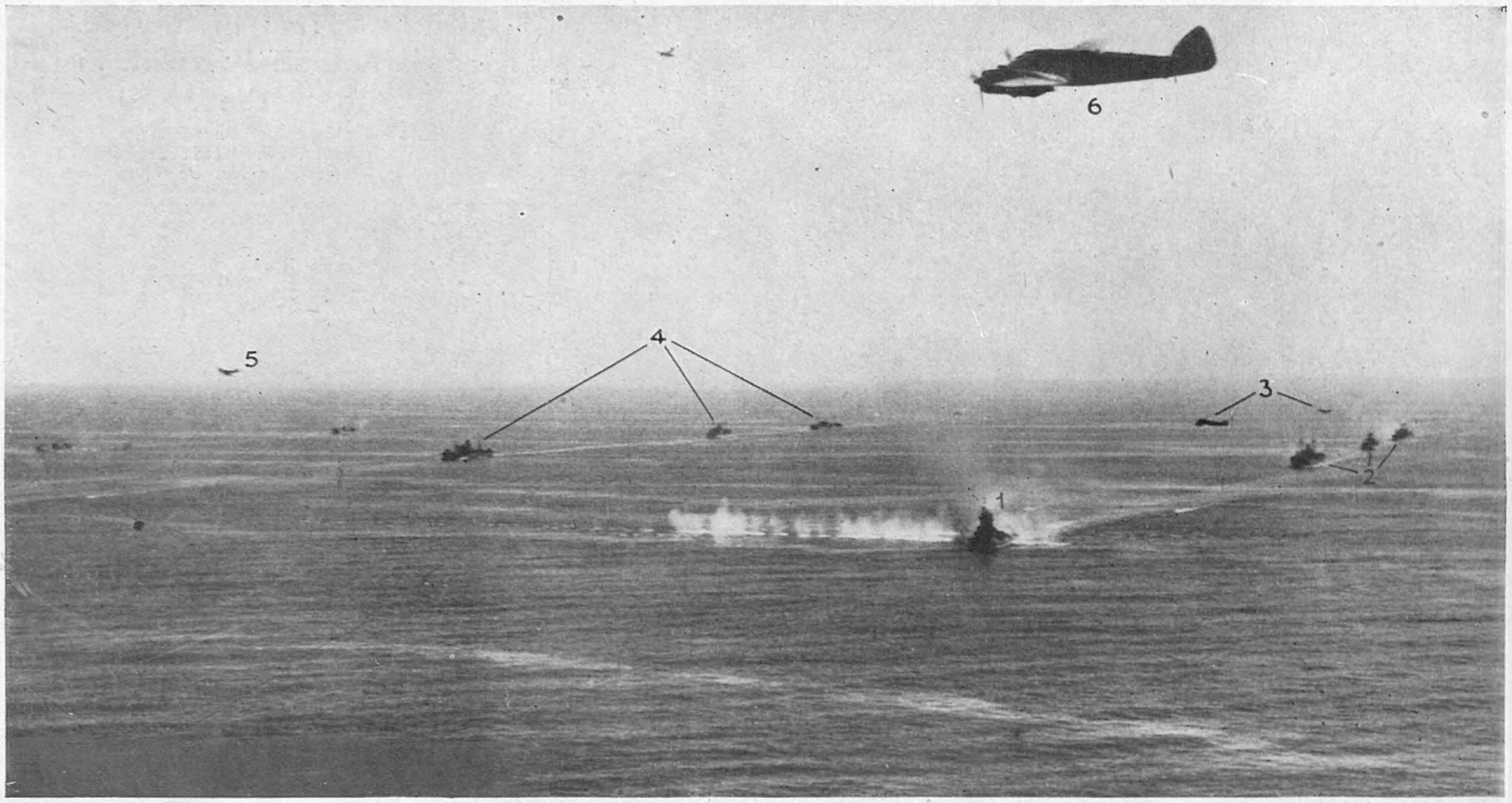
The plan was Field-Marshal Wavell's: the leader of the "Chindit" force was Brigadier Wingate, once known as "Wingate of Abyssinia." The raid took three months: British, Indian and Burmese troops took part, operating in columns which used 1,000 mules, and armed with mortars, machine-guns, tommy-guns and hand grenades. At times further supplies were dropped to the raiders from R.A.F. planes.

Whilst the Japs were dashing hither and thither in attempts to trap them, the raiders cut vital railway lines, harassed Jap garrisons, caused landslides and blocked roads, blew up bridges and, generally, caused confusion wherever they appeared.

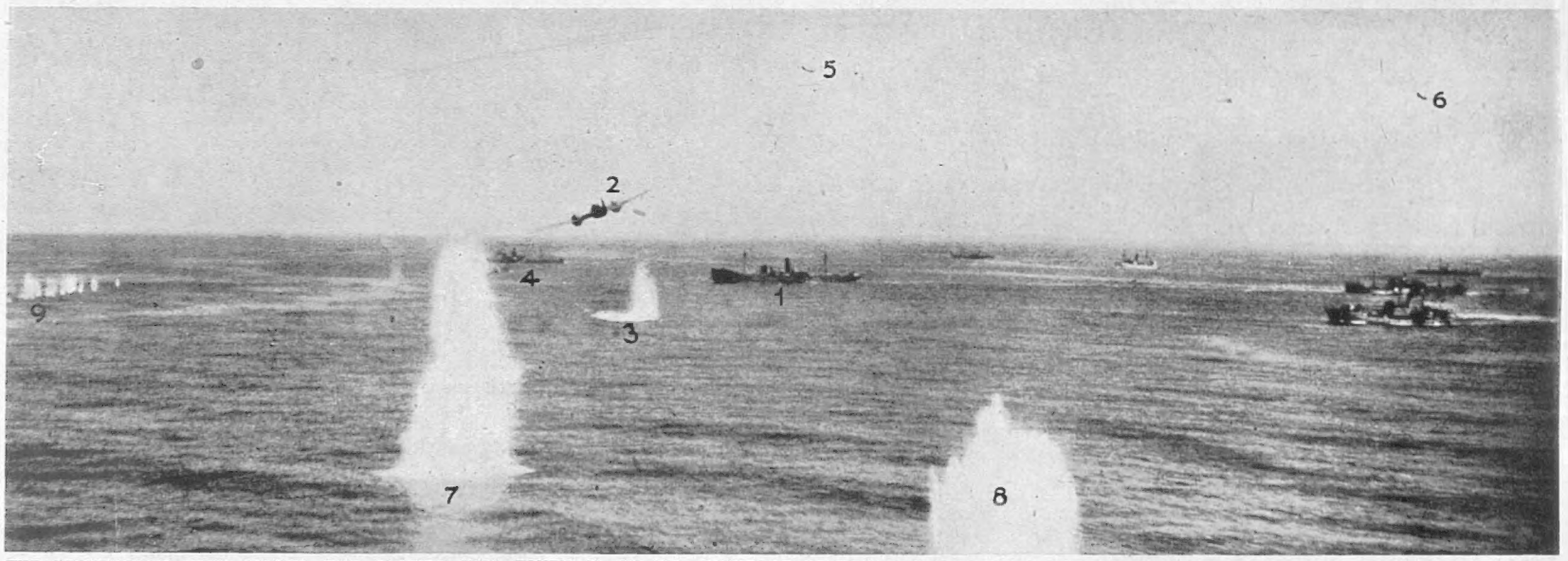
The pictures reproduced here are the only ones which exist, apart from one short news-reel of the "Chindit" force: they were taken in the first phase of the operations in jungle conditions of the greatest difficulty.



THE CHIEF "CHINDIT": Brigadier Orde Charles Wingate, D.S.O., forty years of age, who led the raiders and carried out Field-Marshal Wavell's plan. It was he who, previously, helped to organise the revolt in Abyssinia when Italy entered the war



OFF THE DUTCH COAST, May 17, 1943. An action picture showing how the Nazi convoy was attacked by torpedo-carrying Beaufighters of Coastal Command. A minesweeper at 1 has been attacked with cannon shells; 2—Two of these merchant vessels have been struck by torpedoes released by aircraft at 3; 4—other vessels, which have been attacked by Beaufighters at 5: a Beaufighter going in to attack at 6



THE BEAUFIGHTER FROM WHICH THIS PICTURE WAS TAKEN IS ON THE POINT OF RELEASING A TORPEDO TOWARDS A VESSEL AT 1; the Beaufighter at 2 has already released its torpedo (3) for an attack on a ship at 4; water-borne balloons are carried by merchant vessels at 5 and 6; at 7 and 8 bombs have been dropped by other attacking aircraft; at 9 cannon fire rakes the water where a vessel has just taken evasive action

BEAUFIGHTERS ATTACK A NAZI CONVOY WITH CANNON AND TORPEDO

—Pictures taken during the action

On May 17, a Nazi convoy consisting of six supply ships and eight escort vessels was attacked by Beaufighters of Coastal Command whilst steaming north off the Dutch coast. The R.A.F. wing was led by Wing-Commander H. G. N. Wheeler, D.F.C. (who comes from London): the torpedo-carrying Beaufighters were commanded by Squadron-Leader G. D. Sise, D.F.C., a New Zealander. Torpedo hits were scored on one large enemy merchantman, which was afterwards seen to be listing badly to port and heading for shore: when last seen it was burning fiercely. Another large-size merchant ship was also hit and left burning, and a smaller supply vessel was damaged Meanwhile, the escort ships were raked by cannon fire from other Beaufighters, and three of them were soon in flames. Not one of our Beaufighters was missing as a result of this engagement.

HOW THE ATTACK WAS PRESSED HOME, at mast-height—and sometimes even lower, as this picture taken by one of our aircraft shows. Note the heaped-up cargo on the deck of this German merchant vessel

THE CLEARANCE OF THE CAPE BON PENINSULA IN TUNISIA:

And the Final Scene in the Long and Arduous North African Campaign

TWO BRITISH INFANTRYMEN STAND ON THE CLIFFS AT THE VERY TIP OF CAPE BON, the final stronghold of the Axis in North Africa which was so swiftly overwhelmed by the Allied Forces. Out beyond the Cape stretches the Mediterranean Sea, Sicily and—Italy.

It was to the rocky, scrub-covered hills on the Bon Peninsula that the last remaining forces of the Axis retired after the fall of the towns of Tunis and Bizerta. But their defence in this inhospitable region was not maintained for long: within a few days—hours almost—after the surrender of von Arnim, the only Germans and Italians left in the whole of North Africa were those in the hurriedly erected prisoners-of-war compounds. Over a quarter of a million Axis prisoners were taken, and Cape Bon and its beaches are now deserted—and with only the slightest attempt at a "Dunkirk"! From the point seen in the above picture, the stepping-stones are Pantellaria, in the Sicilian Narrows, the Island of Sicily itself, and then Italy

HOMAGE TO THEIR FALLEN COMRADES AFTER THE BATTLE OF AFRICA HAD BEEN WON: A service on Sunday, May 16, on the Battlefield at Tebourba, where the Royal Artillery went in to engage the enemy's armour in the first of the Tunisian battles in November last

Men of batteries of a Field Regiment of Royal Artillery, who were in the advance guard of the First Army, were among the first to engage the enemy's tanks in Tunisia on November 27, 1942, when they went in to the attack at Tebourba. These gunners knocked out fourteen enemy tanks, but lost several of their 25-pounder guns and crews. On Sunday, May 16, the men who survived attended a short service on the battlefield around the tanks and guns that were knocked out; afterwards they laid flowers on the graves of their fallen comrades. This picture, taken during the service, shows in the foreground one of the destroyed 25-pounders, with men of the battery grouped round a destroyed enemy tank listening to the address

THE CASE OF FRANCO'S SPAIN

Living Conditions for the Populace in a Country Where Things Have Gone from Bad to Worse with the Passage of Time

Described by FERDINAND TUOHY

IN writing about General Franco, I feel that whatever your politics may be, there must be a bond between us. If you are a Tory Imperialist, Franco has sided decisively with men bent on liquidating the Empire. If you are a Liberal Democrat, yours is "an anti-natural, suicidal regime of exploitation and injustice and the cause of modern slavery." If you are away to the Left, you are a barbarian fit only for execution or servitude.

Franco has had a record run for his money in telling other people what a low opinion he has of them, though I suppose he has been moved in part to speak by the kid-glove treatment his own regime has had from most of those he assails. It hasn't been deemed in the national interest to tell the "Christian Gentleman" a thing or two about his own affairs.

Whether by accident or design, a change has come about in this attitude coincidently with Admiral Cunningham's assumption of sea supremacy in the Mediterranean. Mr. Eden as good as told the Caudillo to go and bury himself and his "no victory" peace offer. The damning film, *Inside Fascist Spain*, has been put on public view. And the European Service of the B.B.C., doubtless taking its cue from the film, squarely laid about men who "fill their prisons in the name of Christ."

The film was made by a young Frenchman named Pagès, who was given all assistance by the Franco authorities, whose idea it was to display the rehabilitation efforts of the regime. But the exact opposite effect is produced in any freedom-keen land. Here is no picture of willing Spaniards being set on their feet again. Rather is the abiding impression one of failure and terror. The Falangist Youth Guard is seen regimenting Republicans, of whom 500,000 are in prison camps for the crime of holding to their political beliefs. Special groups, like writers, artists and musicians—"intellectuals"—are made to stand on the prison square forming the Falange emblem. Intolerant religion, oppression and hunger hover over a general picture not so widely removed from similar "reform" in Germany and Italy.

A trustworthy friend back from Spain says that after more than four years of power, Franco's Spain—he consistently referred to it in this way—has utterly failed to mould Spain into any sort of a country at all. Nothing but failure lies around, and it would have been worse but for the Allied shipment of necessities and the purchase of Spanish goods—not pure humanitarianism, but partly to keep the goods from going to the Axis.

The general apathy which is the most striking feature of Spanish life to-day can be partly explained by the half-starved state of the nation and by a police inquisition which silences some of the most loquacious people on earth. But the feeling of deadness up and down the country is even more due to bitter disappointment and a deep apprehension that "it all must be gone through again"—perhaps an exaggerated fear, but I report it.

While the country he presumed to lead to health and prosperity could not be expected to make any notable recovery when subject to a blockade and the repercussions of a world war, Franco, who is so ready to knock others, has himself produced a signal example of governmental incompetence. That is what eats into so many Spaniards who are neither Fascists nor Communists.

The failure at the core has been that of an incorrigibly inefficient and corrupt National Party—the Falange. Franco's victory has brought the scantiest benefits of the kind his supporters had in mind. The much-vaunted agrarian reform is a dead letter. "Arriba" has to admit that the mining industry is in the doldrums because so many of the miners are in prison. Even the rebuilding of Civil War ruin has been allowed to languish—with priority given to the reconstruction of churches when great numbers of people are living in scrounged hovels.

A fair-enough witness here must be Thomas J. Hamilton, late *New York Times* correspondent in Madrid—a newspaper well known for its objective reporting in foreign countries. "A Dante," he says in his book, *Appeasement's Child: The Franco Regime*, "would be needed to describe the hunger of the Madrid poor, living in wretched hovels." Yet he found that "Madrid was a land of milk and honey by comparison with the incredible misery of Andalusia." The death rate is double what it had been before the Civil War, and even in places where food is grown "children with emaciated limbs and faces like skulls gathered round the car."

Condemnation rises in the sentence: "In few countries of the world is there such a grinding, soul-destroying hunger and such luxury for the favoured of fortune." The Black Market, the Estraperlo, flourishes, and it is mainly manœuvred by Falangists.

The plain, unadulterated fact is that a part of Spain is holding down a bigger part, whose surviving males are to a considerable extent in prison, with the obvious result that the wheels of national life utterly fail to revolve. Five years after Irun was destroyed, "the work of rebuilding the town had not even started." Not only has reconstruction been a fiasco, but a progressive, all-round deterioration is discernible. The fine highway system bequeathed by Primo de Rivera has not been saved by the process of putting battalions of prisoners to work in terrible heat.

It is the considered judgment of this American witness that "the situation in Spain has steadily gone from bad to worse since the end of the Civil War. Both material conditions and the morale of the people were worse in 1940 than they had been in 1939, and worse in 1941 than they had been in 1940, and worse now than they were a year ago." A prime cause of this has been the attitude of the Franco regime, which "has set itself the task of keeping alive the hatred inherited from the Civil War. Seldom in history has a Government so deliberately set out to infuriate the conquered." Whenever anyone dares to suggest that a veil be drawn over the past, the proposal is attacked "as a Communist device."

"The inherent cause of Spain's misery," sums up Mr. Hamilton, "lies within the Franco regime itself" because the General has not won, but is merely in power, aided there by Hitler and Mussolini and the appeasing democracies of yesterday. Even within the regime itself there is continuous wrangling. The Falange is split within itself, and here one finds a solitary light touch. The Falangists know what the rest of the Spaniards think of them and they are puzzled by the consideration extended them by certain envoys. "We're no good, apparently, in Madrid," they attempt to laugh it off, "but we're evidently quite persons in Washington and London!"

In the foreign field, Franco's Spain has done no better than it has at home. It clings on to a governing set in Argentina, but elsewhere its only friends—and they unreliable ones—are to be found in the Axis lands. Even Franco now concedes that Germany and Italy cannot win, so the colonial expansion he hoped to secure as part of the bargain for standing up for Hitler and Mussolini vanishes out of sight. Particularly, he wanted a fat slice of French Morocco, yet is it likely that victorious democracies will strengthen a declared anti-Ally regime at this world cross-roads? More likely may Franco see others of Iberian stock temporarily camping there in the cause of the Allies: Brazilian troops conveying by their presence the true feeling of Latin-Americans.

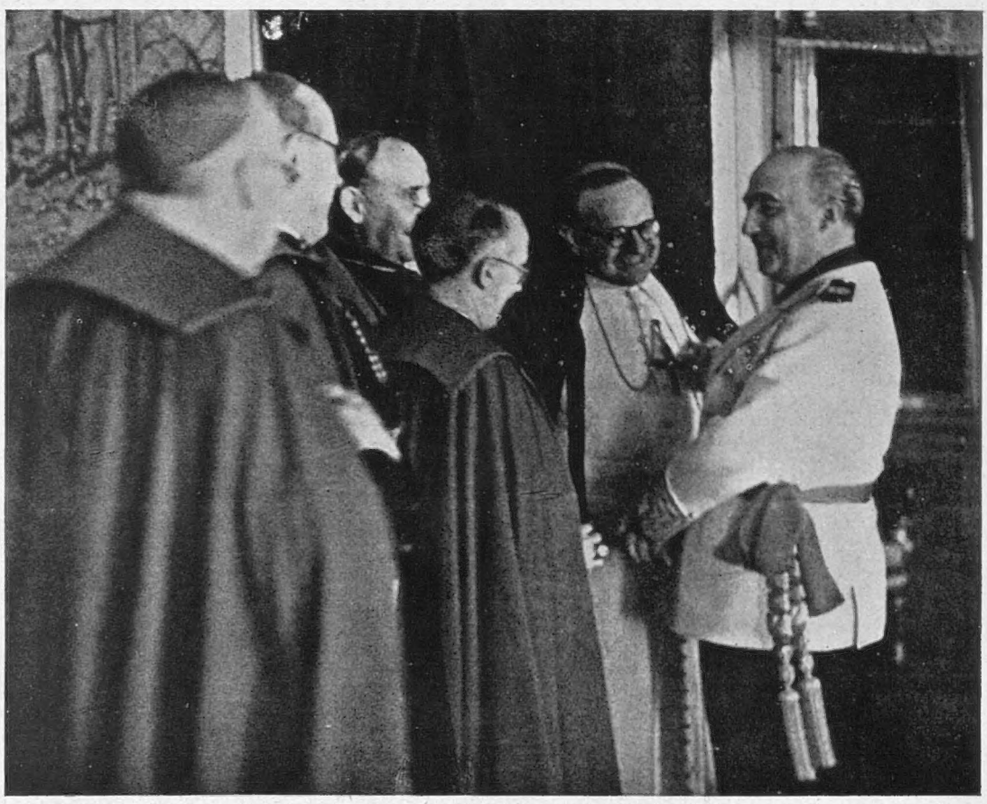
More likely will Franco see his seizure of Tangier challenged, than himself expand further in this region. As is known, Franco thought that Britain was finished in the Mediterranean in 1940, so he stamped into this disarmed, neutral, international settlement where he has ever since made his hold firmer, with the effect that to-day Tangier is as much a part of the Madrid regime as Melilla or Tetuan.

It has been absorbed into a heavily militarised, Fascist Spanish Morocco perched on the rear flank of the Allied forces in the Mediterranean. German and Italian agents have the run of the place, and Allied nationals are treated with contempt and in every way edged out.

Up till now it has been found opportune to humour the intruder on grounds of military expediency, so as to keep this vital western gateway to the Mediterranean free of hostile operations.

It is probably still the wiser part to lie low pending the inevitable resettlement which the future holds, however much this desisting may rankle. But I shall not be surprised if the Allies shortly utilise their North African triumph to the extent of insisting that all latent peril or handicap to the United Nations, in Tangier, be definitely and visibly removed.

Franco is thought to have about a dozen divisions divided on both sides of the Straits, mostly seasoned, and many of them armoured troops, and without going into what Hitler may or may not do, clearly the very weakness of the Franco regime might incite its founders to risk everything in a gamble beside a Hitler wanting to go into Spain.



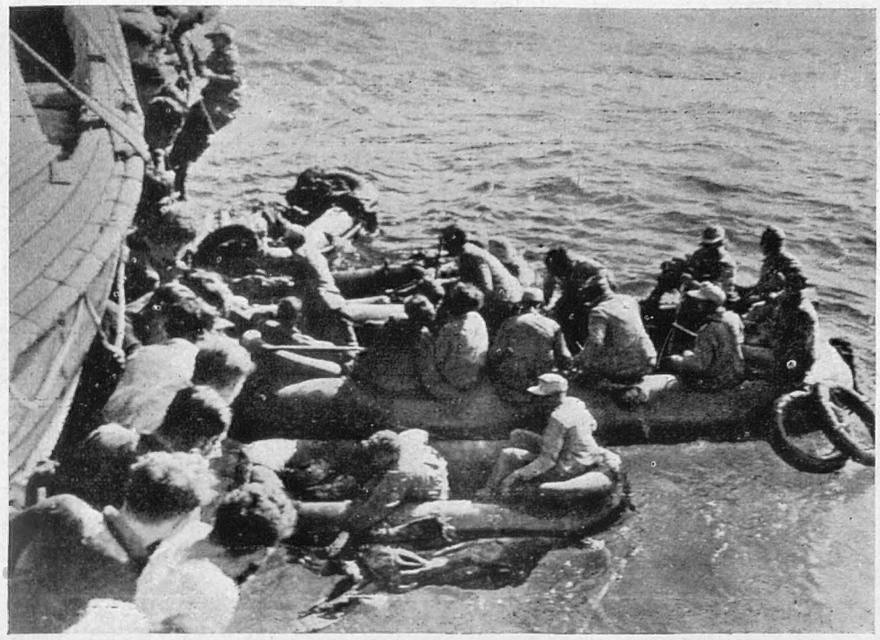
THE LATEST PICTURE TO REACH LONDON FROM SPAIN (VIA ROME). These recently nominated Spanish Bishops have just taken the Oath of Allegiance to the State. After this ceremony they grouped themselves round General Franco, the Spanish Dictator, for an animated conversation

Franco swears he'll stay at peace and well he may. The weary Spanish people hate the very thought of further war, aside from most of them favouring the Allies as against the Germans and Italians. But a stronger deterrent is probably the feeling in the Spanish Army hierarchy which is said to be playing with the notion of succeeding the Falange. Powerful forces in the Army were out for a return of the monarchy. According to latest accounts, the moment for this has now passed, the consequence being that certain Army influences are as sour towards an unpopular, ineffectual regime as other sections of the community.

An escaped underground leader, Rodriguez Vega, goes so far as to report to ex-Foreign Minister del Vayo, in New York, that the Franco regime is falling to pieces. Whatever the fact here, the following from Washington is certainly true: "If (Franco's) Spain should remain above a battle which ends in unconditional surrender, she would be left as the sole remaining pool of Fascism in a world dedicated to the overthrow of that system, and her future would be darkly uncertain."

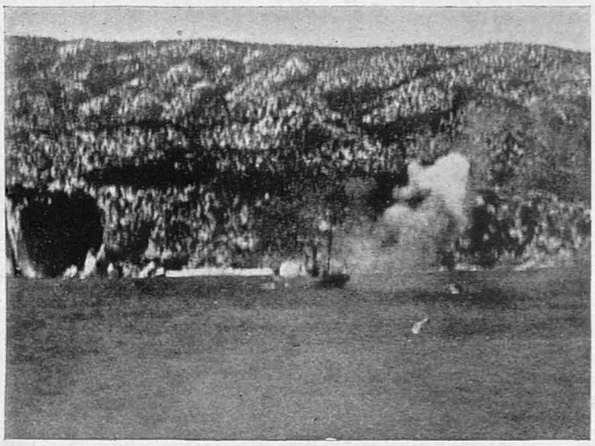
Meanwhile, it is all to the good that Allied sources are at last replying in kind to the long-standing hostility and attacks that have come out of Franco's Spain, which would do well to examine itself for a change.

NO "DUNKIRK" from TUNISIA!

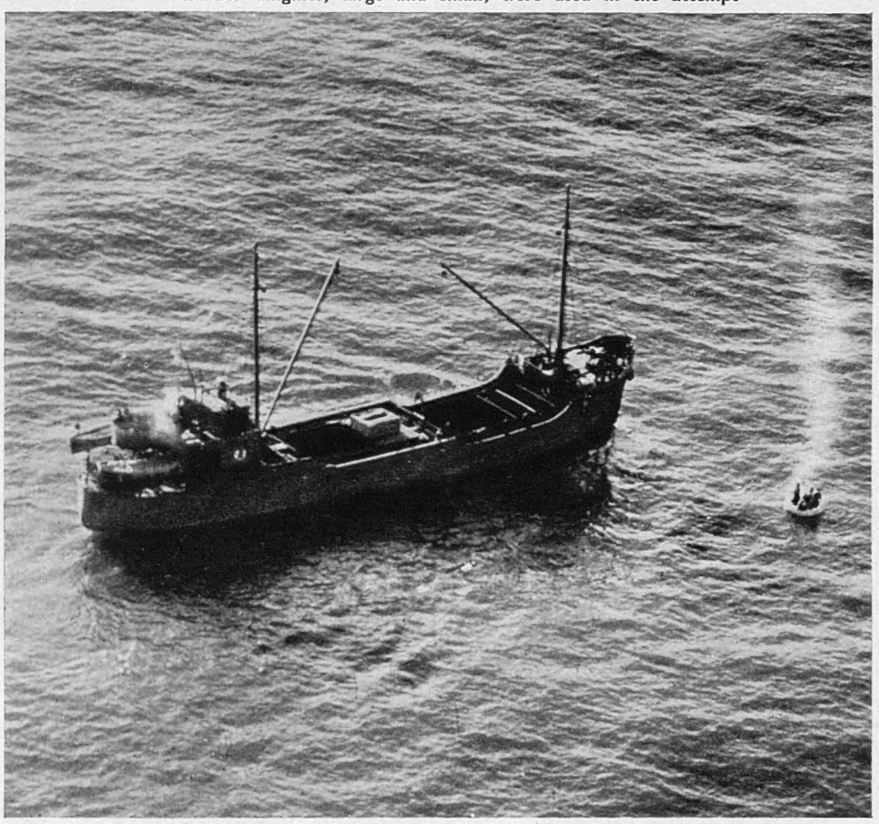


THE "DUNKIRK" THAT FAILED: Some of the Germans from Tunisia, who tried to escape to the island of Pantellaria, being rounded up by the Royal Navy some 20 miles from land. Rubber dinghies, large and small, were used in the attempt

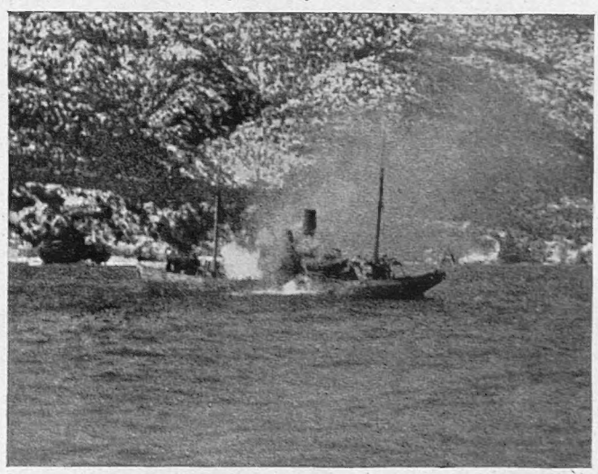
THE MEN WHO ATTEMPTED TO ESCAPE were mostly *Luftwaffe* air-gunners who put to sea in their rubber dinghies when the Axis armies in Africa crumbled. They attempted to paddle their way to Pantellaria, the Italian island midway across the Sicilian Narrows



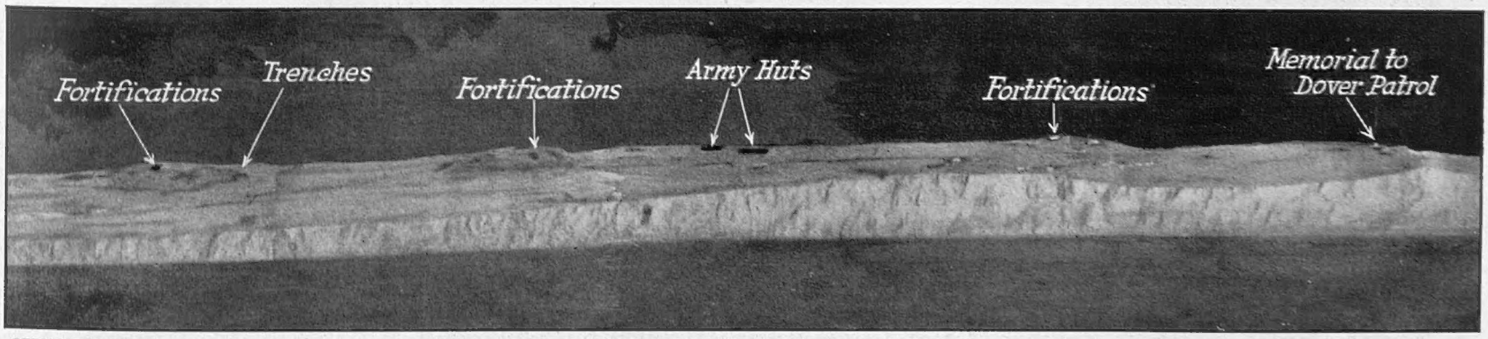
1—ACTION OFF THE ITALIAN COAST: The attack by a British submarine on an Axis minesweeper right under the enemy's nose. The vessel under shellfire, while members of the crew pull away in a small boat



A COLLIER BRAVES DANGEROUS SEAS TO RESCUE A BEAUFORT CREW: Asked by R.A.F. Coastal Command to help in the rescue of the crew of a Beaufort which had "ditched" in the sea, a collier made a hazardous voyage through the rock-girt channel between two islands off the West Coast of Scotland and successfully picked up the four men. The dinghy was sighted by a Sunderland, which reported its position to base. There were no Air-Service Rescue launches available and a motor-cycle despatch-rider was sent to a little port nearby. A collier, which was unloading and had less than 200 tons of coal in her bunkers, immediately got up steam and sailed within half an hour of being asked to help. Guided by the Sunderland, the collier was soon on the spot after navigating through several miles of tricky, fast-moving currents which threatened to carry her to nearby rocks. A burning smoke-float indicated the position of the dinghy, from which the stranded airmen were taken aboard. This picture, taken from the Sunderland, shows the collier just as she reached the airmen in their dinghy

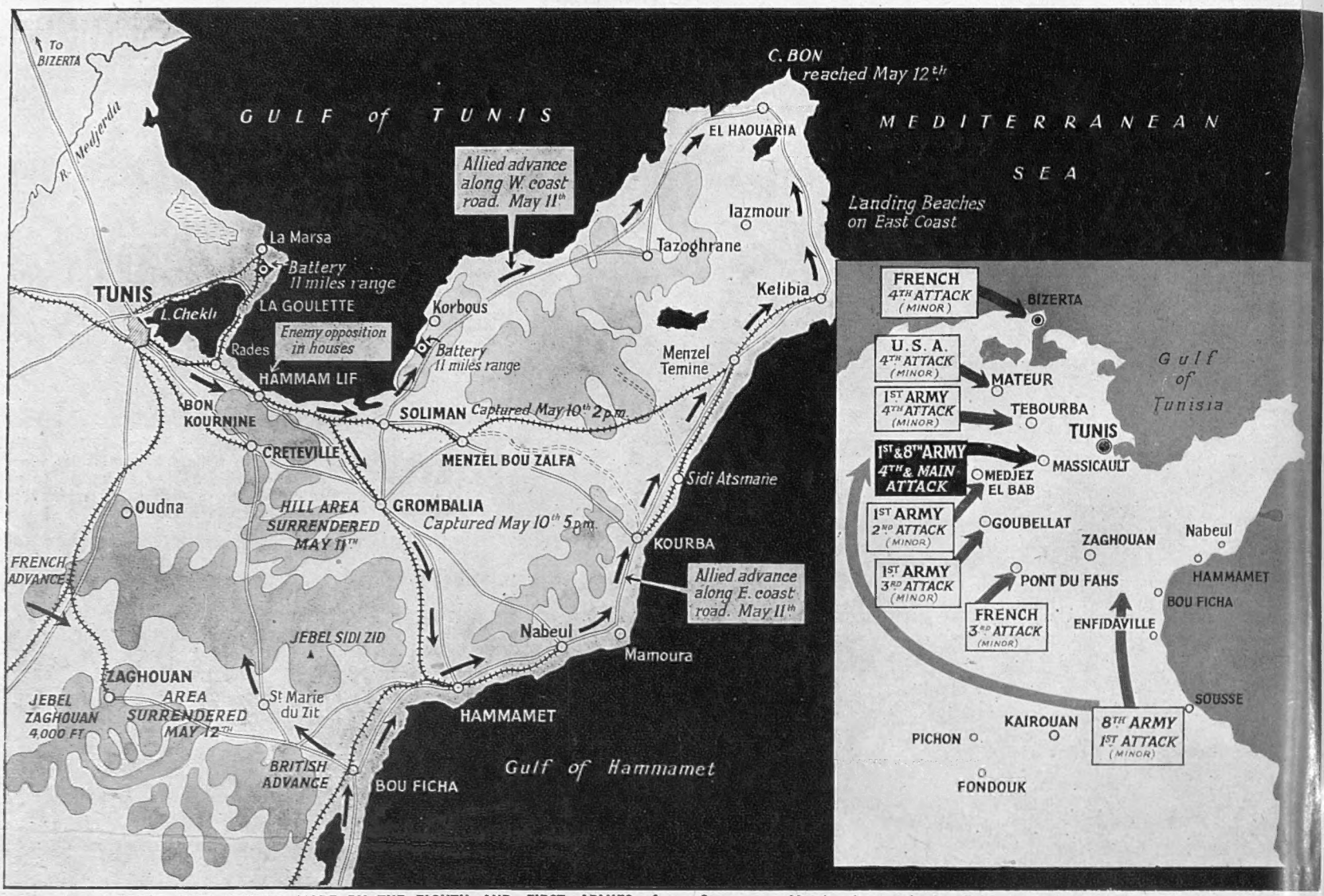


2—THE AXIS MINESWEEPER BEING SHELLED BY THE BRITISH SUBMARINE: The daring of our submarine commanders in the Mediterranean in surfacing right under the nose of the enemy is typified in these two striking pictures taken by a naval officer off the Italian coast. His camera records the recent destruction of an Axis minesweeper by gun-fire close inshore. The sinking ship eventually beached herself



GERMANY'S FRONT LINE OF DEFENCE ON THE FRENCH COAST, AS SEEN FROM THE CLIFFS OF ENGLAND: A wonderful panoramic view showing a length of nine miles of France towards Cape Gris-Nez (on right)—a picture taken by telephoto lens

The cliffs of France stretch white and sheer to the lighthouse at Cape Gris-Nez. There, across 22 miles of the Channel, lies the nearest point of occupied territory. Two photographers took this picture from a house set back 400 yards from the edge of the cliffs at Dover. They had with them "Long Tom"—a camera with an extension giving it a focal length of 10 ft., built and perfected after many weeks of experiment. The camera was loaded with infra-red plates which overcome the difficulties of haze and fog in the atmosphere. The photographers exposed their plates when the naked eye could just make out France as a line on the horizon. The panorama shown above is made up of five pictures, each exposed for two minutes with an aperture of F.6. The camera has brought the fortified coastline close enough for an identification of all its landmarks. There are nine miles of France in this picture



Inset on right: **THE FOUR ATTACKS MADE BY THE EIGHTH AND FIRST ARMIES, from Sousse to Massicault; and the final operations of the First Army, whereby von Arnim's forces were completely routed after the entry into Tunis and Bizerta on May 7 (on left)**

The districts where large pockets of resistance were overcome are indicated in the map of Tunisia given immediately above, with the dates of their surrender. The enemy was given no time to organise resistance, even had he shown great heart in doing so. St. Marie du Zit, where General von Arnim surrendered, is shown to the east of Zaghouan

The right-hand inset diagram shows how General Alexander launched his four main attacks on Arnim's "strong box." They began with the Eighth Army's attack towards Enfidaville, and then followed as numbered. The enemy did not know which would become the main assault. The latter actually developed towards Massicault, and not on the main Medjez-el-Bab highway. The break-through was aided by the bringing up of special forces from the Eighth Army

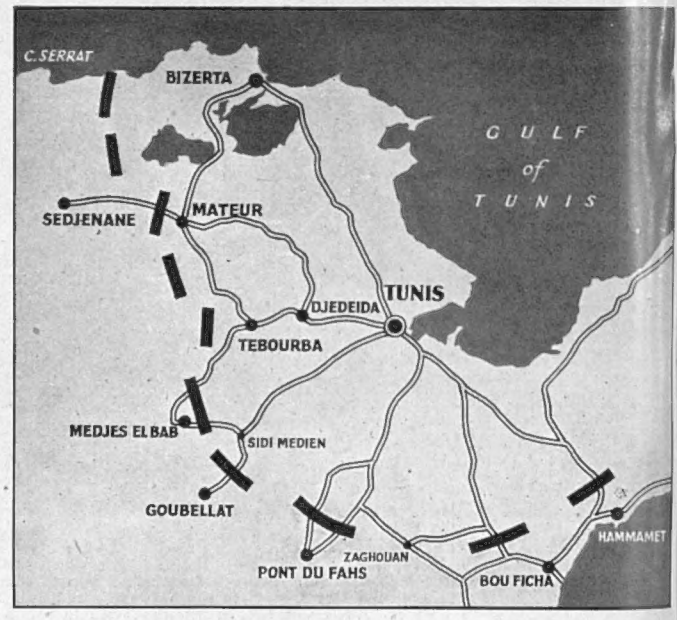
WHY von ARNIM FAILED

An Analysis of General Alexander's Strategy in Attacking in the Centre; and the Drawback of von Arnim's Radial Lines of Communication

—With special diagrams

IN war, more can often be learned from the mistakes of the enemy than from our own failures. It is well established by now that in the campaign which has just ended in Tunisia, errors of strategy and tactics on the part of the Axis have been abundant, while the planning of the Allied Command and the generalship of the commanders of the

This picture, of U.S. Rangers negotiating typical hill country in Central Tunisia, gives some idea of the difficulties which had to be overcome by the Allies. Scrub-covered ravines, densely-wooded stretches and the absence of good roads made progress very slow at times



ONE IMPORTANT REASON WHY VON ARNIM'S DEFENCE FAILED. The radial nature of the main-road system did not allow of the quick bringing-up of reserves or reinforcements to the various areas. Troops and artillery were apt to become locked up in the individual mountain "fortresses"

Allied armies have compelled universal admiration. From El Alamein to the last round-up on the Cape Bon Peninsula, the enemy has been out-generalled, outwitted and out-fought, and wherever we have suffered set-backs or delays, they have been due either to the great natural strength of the Axis defence positions or, in a few cases, to the need to employ for some particular task troops not yet fully experienced in the novel conditions of the fighting in Tunisia.

When Rommel fell back on the Mareth Line, the Axis forces were well placed everywhere. On one side of him were the sea and the barrier of the Wadi Zigzau; in the centre were strong defences in great depth, and guarding his left flank were the salt marshes of El Fedjedj and the Matmata Hills. In the region of Gafsa and El Guettar, the U.S. Fifth Army were in a complicated tangle of ravines and narrow valleys between treacherous hills. Thence, all the way to the northern coast of Tunisia, where the First Army was making laborious progress, the same jagged hills run in a line unbroken save for an occasional narrow pass menaced by strongly-fortified enemy gun positions. Yet, with all these natural advantages, the Mareth Line—the southern bulwark of the whole Axis position in Tunisia—was pierced; General Montgomery outwitted the Germans and took them by surprise by his sweep south of it towards El Hamma and an assault on the Matmatas. By the middle of April the Eighth

THE SCENE AS BRITISH INFANTRY PASSED OVER THE CREST OF THE LAST RIDGE ON THE ROAD TO TUNIS AFTER THE BREAK-THROUGH AT MASSICAULT. From this point onwards, the going was comparatively easy, as organised resistance was already beginning to break down. Drifting across the front of the camera is the smoke from an enemy shell-burst

Army overran the whole of the long coastal plain between the Mareth Line and Enfidaville. Axis forces withdrew to their vaunted "last ditch," the Bizerta-Tunis perimeter, which extended for almost 150 miles from Sedjenane to the Cap Bon Peninsula.

Even this was a remarkably strong defence line, yet in less than a month the last enemy remnants were in process of being mopped up in the peninsula. With all the advantages of interior lines, with the naval base of Bizerta open for supply and airfields on Sicily and Pantellaria available for protection, von Arnim failed—for a variety of reasons. Bizerta and the islands were neutralised by our supremacy at sea and in the air; by the joining up of the First and Eighth Armies and the French and the Americans, von Arnim lost the monopoly of the initiative which interior lines had given him so long as the forces opposing him were separated by the hills and marshes; he had not yet learned that the weight of the Allied air offensive when concentrated upon the more confined space within the perimeter would be doubly shattering.

The Allies had perforce to act on exterior lines until the Eighth Army was able to join up with the rest of the Eighteenth Army Group. This meant that Rommel could switch his panzer formations from the Eighth Army front to oppose a danger on another part of his line by the Americans and then bring them south again when once more threatened by the Eighth Army. But when this inequality in freedom of communications was levelled up, the disadvantage of the perimeter began to appear, for the Allies could switch reinforcements from one sector to another as easily as could von Arnim, and they were in such strength that a concentric attack could be maintained on all the approaches to Tunis and Bizerta.

There were many roads to Tunis from the surrounding hills in which the Allied troops were fighting for the passes, and the enemy now were unable to foresee from which of the different thrusts most danger threatened; air supremacy and the attack maintained continuously at every approach ensured that. Once the passes were forced, the vital thrust might come by the road from Pont du Fahs along the Wadi Kebir, or by way of Mcherga, or it might come from Goubellat across the plain through Massicault, or again, through Tebourba and Djedeida.

Lining all these approaches were von Arnim's troops and armour, dangerously extended, for from whichever approach the critical attack would come, that sector could not be rapidly reinforced. Between those several roads von Arnim had but few lateral communications, so that he could no longer switch his panzers from one to the other with his accustomed ease. The *Luftwaffe*, too, was bereft of its power of reconnaissance by the superior air forces of the Allies, and movements of Allied troops and armoured vehicles on the roads behind the crests of the hills went often unobserved until too late.

The Allies' thrust which took them into Tunis was made along the Medjerda Valley, but on the lesser road that runs through Massicault, where von Arnim seems to have least expected it. He did not know that units of the Eighth Army had been sent north to reinforce the striking power of the First Army. So deeply imbued was he with the knowledge of the extraordinary quality of the Eighth Army, and so far deluded by their continuous pressure on the troops opposing them, that he believed they would make the decisive stroke, and concentrated his armour on their front. Nor was he able to switch any considerable help in tanks or troops to the threatened sector even from the comparatively near-by areas where they were pinned down by the continuing pressure which had never once been allowed to lessen in intensity.

F. A.

On right—

General Giraud arrived at Tunis airport by bomber, escorted by Spitfires, and was greeted by French officers. He viewed the wrecked hangars and scattered aircraft left on the aerodrome as a result of the intensive Allied blitz which preceded the rout of the Axis forces. In celebration of the capture of Tunis, a grand military parade was held in the town on May 12. General Giraud took part in it, and his reception by the huge crowds lining the streets was terrific. Before going to the saluting base outside the Cathedral, the General placed wreaths on the Moslem and French memorials

GENERAL GIRAUD IN TUNIS: Listening to an address of welcome read by one of two little French girls who presented him with bouquets

INTO BIZERTA: British patrols advancing through the bomb-scarred streets of the great naval base in search of enemy snipers. Town and harbour were both heavily damaged, owing to the great Allied bombing attacks from the air which preceded the final capitulation

THE BURSTING OF THE DAMS

What Aerial Reconnaissance has Revealed of the Flooding which Followed the R.A.F. Attacks on the Eder and Moehne Dams in the Ruhr

THE MOEHNE DAM BEFORE THE ATTACK: This picture shows the Power Station behind the powerful retaining wall: it also shows the torpedo-net defences put up to prevent such an attack as that successfully carried out by the R.A.F. on May 17. Now compare this picture with the one on the right taken *after* the attack

THE SAME DAM AFTER THE ATTACK, showing the breach of about 200 ft. wide at Moehne. It can be seen that the lake formed behind the dam has already been drained of the major part of its contents, but the water is still pouring through the breach in this picture. The foam and disturbed water visible immediately below the bridge cover the space where, before the destruction, the Power Station was situated. The water draining from the lake overflowed and destroyed the dam surrounding the Compensating Basin. The Auxiliary Power Station stands on an island on the remainder of the dam

THIS PHOTOGRAPH WAS TAKEN A FEW HOURS AFTER THE BREACH WAS MADE at the Moehne Dam. It shows the diminishing waters in the upper reaches of the Moehne Lake at a point near Korbeccke where a road bridge crosses it. The lake is very nearly drained away: shortly after the picture was taken, only a narrow river would be left of this once great stretch of water

***On left*—THE DAY AFTER: Flood devastation in the Ruhr Valley at Frondenberg-Bosperde, 13 miles from the Moehne Dam. Millions of tons of water have swept through the valley, causing devastation to industry and agriculture, and the complete dislocation of river and canal traffic in this vital area. The following damage is indicated in the picture given on the left: 1—Submerged road; 2—Isolated electricity works; 3—Destroyed road bridge; 4—Railway bridge destroyed; 5—Wrecked railway coaches; 6—Sidings submerged**

THE BREACHING OF THE EDER DAM, THE LARGEST RESERVOIR IN GERMANY (which contains 202,000,000 tons of water). The Rivers Eder and Weser have been released and serious floods are now spreading throughout the Ruhr Valley. This picture, taken during reconnaissance, shows the village of Affoldern (2½ miles downstream from the Eder Dam, near the Bad Wildungen) completely surrounded by flood water. The Power Station has been destroyed, and electricity pylons (seen in the left of the picture) are isolated amidst the floods

AT THE EDER DAM: The south-east end of the storage lake, with the dam breached between the two valve-houses at a point about 400 ft. from its western end. The breach appears to measure about 180 ft. at the crown of the dam, narrowing to about 100 ft. at its lowest visible point. Water is still seen pouring through the gap, flowing fast downstream towards Kassel

On left—A SCENE NOW BEING REPEATED AT MANY VILLAGES AND TOWNS THROUGHOUT THE RUHR. How the Eder has flooded over the countryside below the dam. (The latter itself is not shown in this picture.) Roads, fields, farmsteads, houses, all are under water, and the floods were still rising when the picture was taken

THE SCUTTLED BLOCKADE RUNNER "SILVAPLANA" ON FIRE AND SINKING AFTER HER INTERCEPTION: Flames enveloped her bridge and a series of internal explosions rent her hull. Burning fiercely and with her ammunition exploding, she heeled over and sank stern first

OFFICERS AND CREW OF THE SCUTTLED "SILVAPLANA" pulling over to H.M.S. "Adventure" after the blockade runner had been sunk. The huge rubber dinghy used by the Germans, in which a score of men could find a place, seems to be something new in this type of craft!

THE KEEN-EYED LOOK-OUT with the Officer of the Watch. Seaman Eric Devlin and Lieut. A. A. Stein, R.N.V.R., of Hendon, London (a former furrier in the City)

THE END OF A BLOCKADE RUNNER

"Silvaplana" is intercepted by the cruiser "Adventure" 200 miles off Cape Finisterre

Vital raw materials, "sufficient to equip three German Armoured Divisions for a year," were denied to Hitler by the Royal Navy on April 10 off Cape Finisterre, when the cruiser *Adventure* (commanded by Capt. R. G. Bowes-Lyon, M.V.O.) chased and intercepted the armed German blockade runner *Silvaplana*, inward bound from the Far East with a cargo of rubber and tin. Although well armed, the Germans made no use of their guns when ordered to stop and scuttled their ship when only 200 miles from Cape Finisterre. One hundred and fifty-seven prisoners were taken, of whom over 100 were members of the German Navy. It was one of the largest hauls of prisoners taken by one ship during the present war. The *Silvaplana* was first spotted about 17 miles away by one of the look-outs, Seaman E. Devlin. She was a vessel of 4,793 tons.

The announcement of her interception was made in conjunction with that of another blockade runner, the *Regensburg*, of 8,068 tons, by H.M.S. *Glasgow*. This vessel, too, was scuttled by her crew between Greenland and Iceland. In this case, although every effort was made by the *Glasgow* to rescue the *Regensburg's* personnel, owing to the effects of icy water and heavy weather only six out of a large complement were rescued. Such ships as the *Silvaplana* and *Regensburg* cannot be assessed in the same class as ordinary supply vessels. Blockade runners might be described as Number One Priority Ships.

ON THE BRIDGE DURING THE RE-ENACTION OF THE ENCOUNTER AFTER THE "ADVENTURE" HAD RETURNED TO BASE: From left to right in this picture are the Captain (Captain R. G. Bowes-Lyon, M.V.O.); the Chief Yeoman of Signals (W. Ede, of Plymouth, who has been in the Royal Navy for twenty-six years); Lieut. D. R. Gales, R.N.V.R. (whose home is at Theale, near Reading, and who in civil life is an electrical engineer); Lieut. J. R. M. Vaughan-Lewis, R.N.V.R. (who comes from London); and Lieut.-Commander A. W. Anderson, R.N.V.R. (who comes from Londonderry. He has been thirteen years in the Ulster Division of the R.N.V.R.)

GERMAN NAVAL PRISONERS FROM THE "SILVAPLANA" being escorted off the cruiser on arrival at a port in the United Kingdom

BRITISH TANKS HULL-DOWN IN THE CORNFIELDS AS THEY LEFT THE RUTTED FARM-TRACKS AND PLOUGHED ON TOWARDS TUNIS: This was the scene after the last crest had been passed after the decisive battle at Massicault and the Tunisian capital was in sight less than four miles away

How the End Came in Tunisia (I)

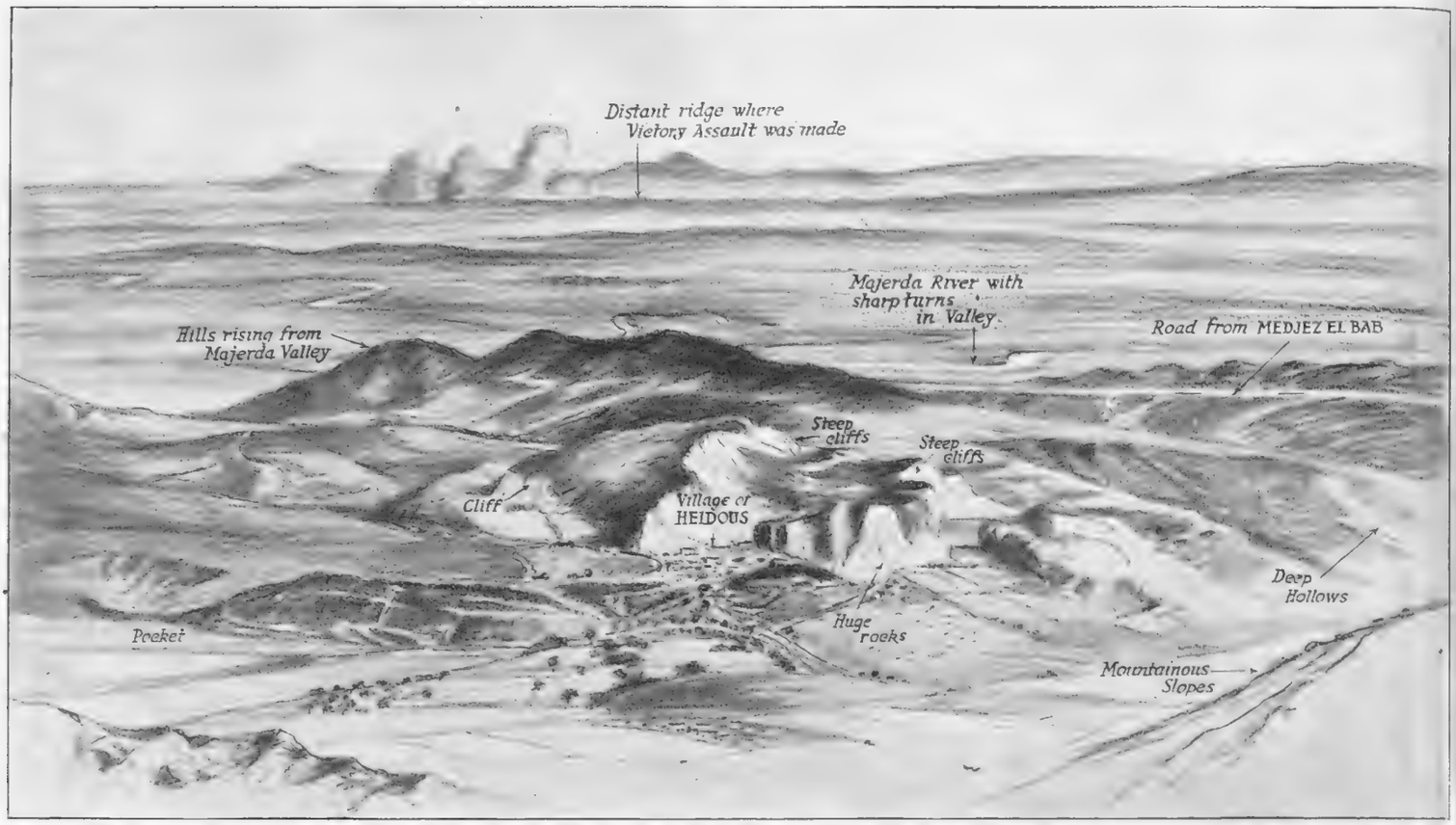
The ADVANCE on TUNIS

The Final Stages on May 7, when Waves of Tanks, Guns and Lorries Converged on the Town by All Routes

—Two drawings by W. G. Whitaker

When the final crest in front of Tunis had been reached on May 7, the city was plainly visible less than four miles away. Tank after tank was soon grinding over the crest and down into the plain: after them came a long train of guns and lorried infantry. Hill-track soon became farm-track and began to pass through cornfields. Guns and lorries turned out at intervals from the column and took up their places ready to support the advance of the tanks. The latter themselves left the track and advanced parallel to it in the fields, and were able to press on faster, riding like ships through the waves of corn. Soon the track began to take on the semblance of a road, and the tanks returned to it. Then, from the scene depicted in the upper drawing, suddenly the columns were on a road among houses and groups of wildly excited French people, shouting and clapping and making V signs and waving flags (as shown in the drawing below). In this swift thrust from the last ridge down into the plain, the prelude to the fall of Tunis, the tanks raced through a man-made dust-storm that darkened the horizon, reducing visibility in the forward areas to a few yards. Dust swirled into the eyes and parched the throats of the advancing troops. It seeped into boots and through clothing, turned the blackest head of hair grey and filtered into every vehicle. Despatch riders rode with goggles tight against their faces and handkerchief masks over mouths and noses. As the hundreds of guns and countless "thin-skinned" transport vehicles and troops went forward over tracks and paths inches deep in dust the effect was tremendous. Every shell and bomb added its quota, and eventually a vast grey pall rose in the sunlit air until it merged with another mighty cloud set up by the retreating enemy.

THE ADVANCE "LIKE A TIDAL WAVE." The race across the last Tunisian plain through a man-made dust-storm as the hundreds of guns and transport vehicles and troops got moving over tracks and paths inches deep in dust. As the despatch riders halted and took up station to direct the vast columns towards the city, French girls dashed up to present bunches of flowers to them



THE FANTASTIC TERRAIN OVER WHICH THE FIRST ARMY FOUGHT IN THE VITAL MASSICAULT REGION. Sudden outcrops of rock produce conditions which altered the nature of the fighting within a few hundred yards. This is the scene overlooking Heidous village, which lies in a hollow just behind Longstop Hill. In the distance is the road to victory, and to Tunis, by way of Massicault—*Drawing by Percy Home*

How the End Came in Tunisia (II)

THE EVENTS LEADING UP TO THE ENTRY OF TUNIS AND BIZERTA

—Special Sphere Diagrams and Drawings

Heidous, cupped in a fantastic hollow in the Medjez-el-Bab region, is a village around which the tides of war have flowed for six months. It lies—what remains of it—to the north-east of Medjez-el-Bab under the shadow of Longstop Hill (which in the view given here would lie just outside the spectator's vision to the left). Below the village runs the main road and railway to Tunis, with the winding Mejerda River in the broad valley below. At this point there is a wide prospect of flatter country : beyond the valley are a number of swelling ridges, some of which were crossed by the victorious First and Eighth Armies when the break-through occurred on the Massicault Road. Although the village lay so close to advanced points captured by the First Army in its strenuous fighting in the Medjez area, it remained in the enemy's hands until the end of April. There had previously been some hot fighting among the cave-dwellings which were one of the curious features of a very strange place. For Heidous was, indeed, an example in miniature of the fantastic geology of North Tunisia which produced so many strange episodes. Although surrounded by hills and fields on more gently swelling lines, the immediate features of the village were erratic in the extreme. The normal little white houses were frowned upon by great masses of rock and sudden uprisings of gleaming white cliffs. In other directions, steep hollows must have made the vicinity of Heidous a severe problem during night operations

THE MOST NORTHERLY ATTACK OF ALL : The advance of the French Colonial forces along the cliff road on the extreme northern flank of the Allied line. These operated in mountainous country, over roads often perched directly above the sea. Forcing their way forward, they had reached the area of Ras El Koran when the Axis collapse came after the fall of the towns of Bizerta and Tunis—*Drawing by E. G. Lambert*

While the resounding clashes of major actions were taking place at positions farther south on General Alexander's far-flung line, a special force was working its way eastwards towards Bizerta in what one correspondent describes "wild, hilly country." This was by no means an exaggerated description of the terrain through which the Colonial French troops and Goums had been pressing eastwards towards Bizerta on the very extreme edge of General Alexander's left flank. Part of these forces had perforce to act very much on their own, for on their immediate left hand were sheer cliffs dropping abruptly to the sea. From Cape Serrat, upon which the front originally rested, the roads leading eastward skirt the sea with no space for deployment whatever. At Cape Ouglia the road bends inland a little, but beyond that point, from Marsa Douiba to the Ras El Koran, the road clings literally to the cliff edge. A party of Goums actually occupied Ras El Koran just before the general Axis collapse. French Colonial forces a little farther inland pushed through the coastal hills, ranging from 600 to 1,500 ft. in height, and closed each road. Other forces, Colonial and Goums, actually working with the U.S. troops around Lake Achkel, advanced very rapidly and evidently disconcerted the Axis defences

THE VICTORIOUS ADVANCE OF THE FIRST ARMY OVER THE FINAL RIDGE WHICH BARRED THE WAY TO TUNIS. The scene on the Massicault Road as the city came in sight some four miles away and as the British infantry and tanks went forward together—*Drawing by E. Byatt*

The town of Massicault was the strongest German defence position in the central sector of the front, and the hinge of the Tunis defences. A major battle took place here and the Axis were thrust out of their stronghold. From that moment all was lost for the enemy. As a last hope, the German commander placed his panzers across the road to Tunis hull-down to wait for our tanks: he backed up the panzers with mobile guns. All prepared to open fire on our tanks as they came through. But General Anderson rushed up big guns during the night and blasted a way for our armour, which then roared through our advancing infantry on to the plain. There they found sixty Axis tanks in all—thirty-five south of the road to Tunis and twenty-five to the north. The infantry did not wait to clear the ridges and positions held by the enemy, leaving those tasks to the tanks, but pressed straight on to the capital. Shelled by our own tanks and by our heavy artillery and shattered by an unparalleled air attack, the Axis commander soon ordered his forces—or what was left of them—to withdraw

STREET FIGHTING IN THE TUNISIAN CAPITAL AS OUR FIRST TROOPS ENTERED. Snipers and machine-gunners in houses and office buildings being routed out by machine-gunners. Heavy fighting of this nature occurred before the Germans realised its futility—*Drawing by E. Byatt*

The occupation of Tunis was not accomplished without some serious encounters with snipers in strong-points throughout the city. The Axis marksmen had concealed themselves in upper rooms, firing at the Allied soldiers through windows. The men of the First Army made short work of such opposition. As the afternoon wore on, and the realisation of the futility of such action dawned on the trapped Axis troops, they began to surrender in droves—with the French population helping by pointing out to the British where Germans and Italians still lay concealed

THE SURRENDER OF THOUSANDS OF GERMANS TO THE BRITISH FIRST ARMY IN TUNISIA: A German officer, decorated with the Iron Cross and one hand of his men into captivity. A British tank, drawn up by the roadside, and a few armed British soldiers shepherd the prisoners on their way to the at a time, often driving their own transports and often without a single British soldier as escort! The total count of Axis p

When our forward elements entered Tunis in the late afternoon of May 7, they were fired on by Axis snipers. One of these enemy strong-points was situated in a block of half-built flats, and our heavy armour was brought forward to deal with the situation. After a sharp engagement, the enemy position was subdued. While our troops were engaged in hunting out the snipers, the civilian population ignored the flying bullets and streamed out into the streets to greet their liberators with great enthusiasm. This picture was taken as the last prisoners from the Tunis strong-points were being marched off into captivity: in the background is the gateway into the city

As a result of the fierce onslaught of the Allied armies against the last foothold of the Axis in Africa, the greatest surrender in history has taken place in Tunisia—a breakdown of a great fighting force of some 300,000, fully equipped with the latest weapons of war and not broken down by prolonged starvation.

The attack began on May 5, and seven days later all organised resistance had ended, and the enemy Commander-in-Chief captured. During the first two days, while fierce fighting was taking place, prisoners came in slowly. But after the capture of Massicault, the pivot of the German defence, the road lay open to Tunis, and the Axis forces were cut off from one another. Prisoners came down from the hill-sides, with their hands up, as the victorious First Army swept on towards Tunis.

The advance had been so swift that the Germans left in Tunis, some 3,000 men, to guard the retreat of the army which had evacuated the evening before, were completely surprised. Most of them were found strolling about, clad in their green gaberdine uniforms and peaked caps, apparently unconcerned with the disaster facing their armies. Some took up positions in houses and started sniping the first armoured cars which arrived, but this opposition was soon overcome, and presently the excited French population were watching lorry loads of German prisoners being driven through the streets.

Some were sent back towards Medjez, others were kept in a loosely-guarded camp in a country house just outside the city, where 11,000 were gathered. These were mostly glum, dejected and bewildered at the strange change in their position, overwhelming in their power a few days before and now hissed and booed by the French.

Bizerta, the great naval fortress, had fallen on the same day and almost the same moment as Tunis. On Sunday, May 9, the first large force to surrender were the troops under General

How the End Came in Tunisia (III)

THE FINAL PHASE—THE PRISONERS POUR IN

—Two Special Drawings by EDWARD OSMOND

nd hel aloft, carries his own heavy valise as he leads a line he internment compound. The prisoners came in hundreds prisoners is now over 225,000

THE GERMAN SURRENDER AT BIZERTA : Some of the 25,000 Axis prisoners who gave themselves up to the U.S. troops in the Bizerta area on May 7 and the succeeding day. They left behind them a burning port, and came in their thousands to surrender after a whirlwind campaign which left them dazed

How the German prisoners streamed into our lines in the country outside Tunis, the day before that city fell. In the background may be seen British transports following on the heels of our advancing infantry

Another scene, from the Frendj area, showing how a body of Germans surrendered to a British tank crew and were then escorted into our lines. Scenes like these were reported from every sector of the Tunisian front

Krause, Artillery Commander of the Afrika Korps, who had been pinned down near Porto Farina.

Directly after Tunis was occupied, the First Army was ordered to cut off the Germans who had retreated to Cape Bon Peninsula.

Fifty thousand men surrendered eagerly to the advancing British, and then began the long trail back, crowded into cars, driving themselves back towards Tunis, an unarmed and demoralised and leaderless horde of prisoners. They seemed delighted to find someone to whom they could surrender. By midday on Tuesday, May 11, the whole of Cape Bon Peninsula was in British occupation, and the same day the German 90th Light Division, under General Graf von Sponeck, who had fought with valour in the Zaghouan area, surrendered to General Freyberg, commanding the New Zealanders. The final collapse came the following day when General von Arnim was captured at his headquarters at St. Marie du Lit, and the number of prisoners mounted to 150,000, with seventeen Generals. A 90-mile procession was streaming along the roads to Tunisia, to end in the wire-protected camps, which had been prepared some little time before—just barbed wire round some flat ground, with a small tower at one end, commanded by a sentry with a machine-gun. The later figures for the prisoners captured within the whole enemy defence area rose to 150,000, and later it was stated that the final figure was over 225,000

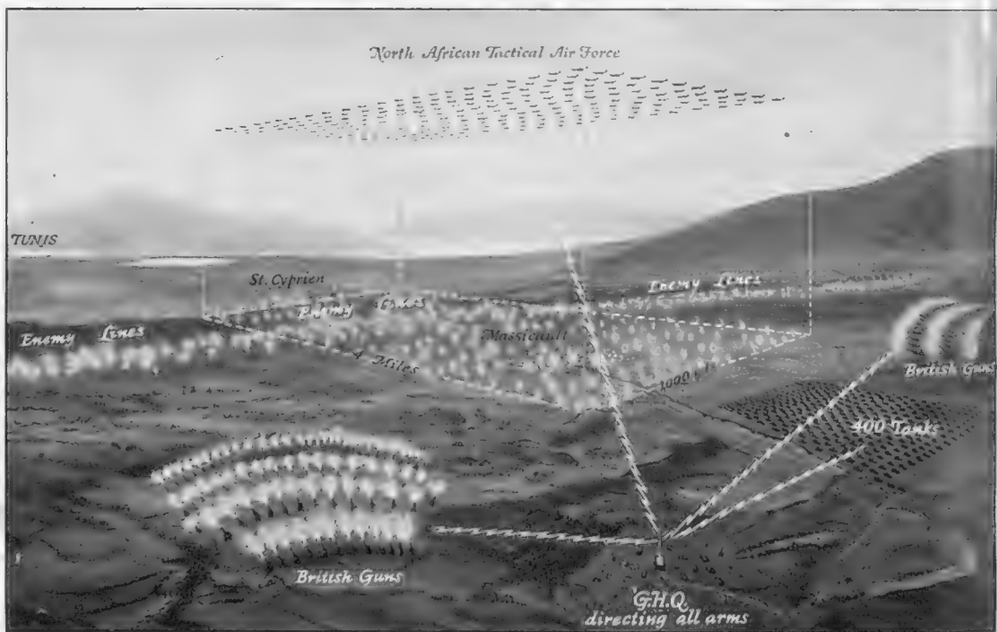
THE ALLIED AIR FORCES ALONE IN THE SKY OVER TUNISIA AFTER THE VANISHING OF THE "LUFTWAFFE." As the Allied armies closed in on Von Arnim's defence area, the "Luftwaffe's" position became untenable. Aerodromes and airfields were captured or made useless to the enemy, and therefore the remaining Axis aircraft had to be withdrawn to Sicily. The Allied Air Forces then proceeded to attack the Cape Bon Peninsula, strafing convoys on the roads and stray shipping along the shores, until the Peninsula was completely isolated. Von Arnim's final surrender soon followed!—*Drawing by Roland Davies*

How the End Came in Tunisia (IV)

The "LUFTWAFFE" is BEATEN OUT of the SKY and the R.A.F. DOMINATE the SCENE

—Special Diagrams and Drawings

AFTER A TRAIN ATTACK: Burned-out trucks still standing on the rails among the wreckage. This train was laden with ammunition for the Axis front-line forces. It was destroyed by Allied bombers in an attack on a country railway station near Enfidaville. The track was torn up by direct hits, rail cars were shattered and burned out, shells were strewn over a wide area, and station buildings were damaged. The steady pressure of the Allied bombing offensive kept thousands of enemy weapons out of the front line, and Axis communications were disorganised. Millions of rounds of ammunition never reached the guns, and aircraft were put out of action even before they took to the air



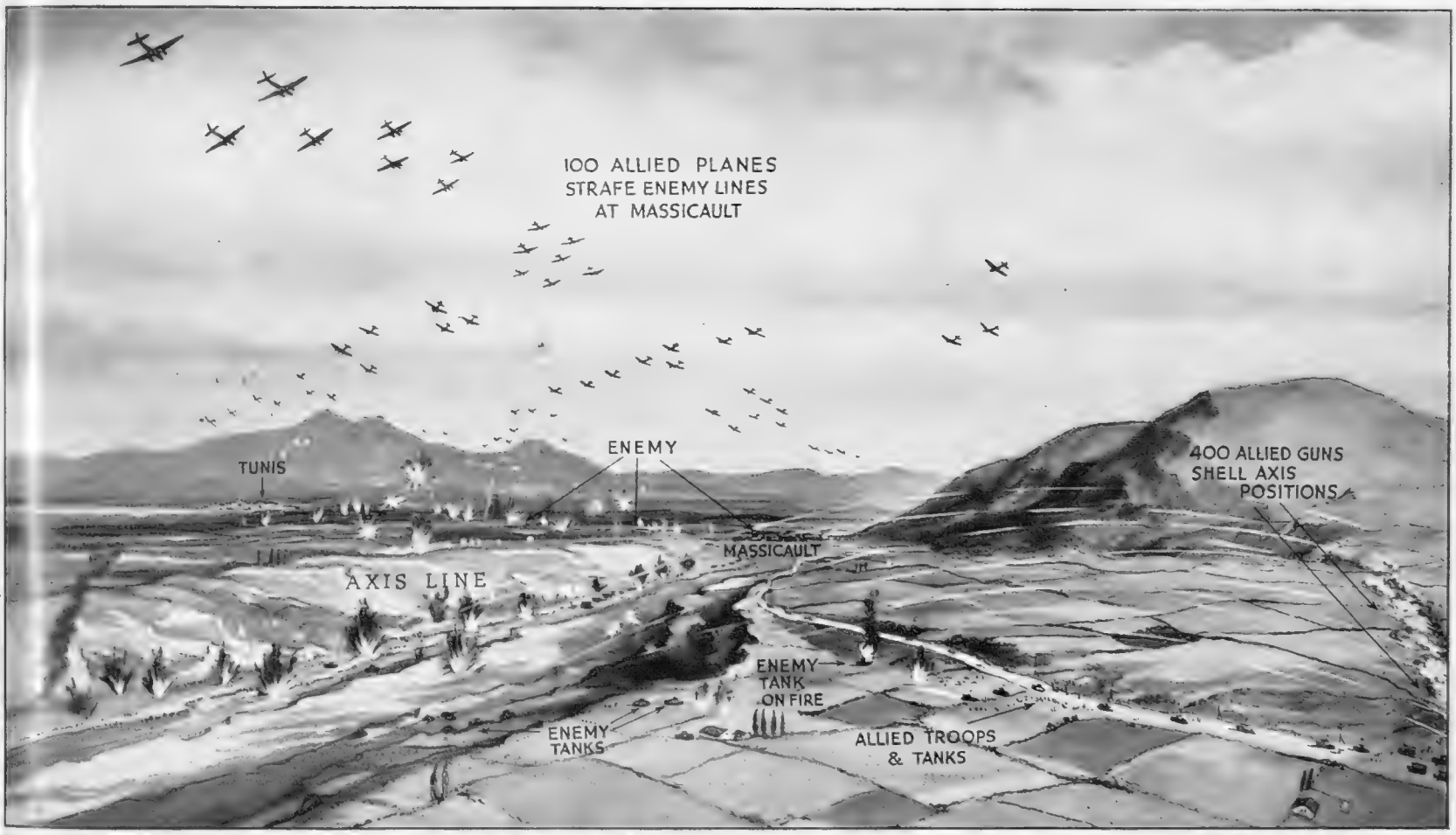
"TEDDER'S BOMB CARPET": How the R.A.F.'s Tactical Air Force co-operated with the British artillery and tanks in the Massicault area and forced the final barrier between the First Army and the city of Tunis. Tedder's "Carpet" covered an area some four miles long by 1,000 yards wide: hundreds of guns and 400 tanks, working with the planes, finally hammered the way through to the Tunisian plain—*Drawing by Gordon Forsyth*

During the final stages of the Tunisian campaign, frequent mention was made of "Tedder's Carpet" and of the part it played in the battle for Massicault, the hinge of von Arnim's armies. At this spot the First Army, aided by the R.A.F., blasted its way through the Axis forces and within a matter of hours had broken the enemy's power to continue the fight in North Africa.

The "carpet" was laid (as shown in the diagram above and in the drawing by Mr. Davies in the centre of the facing page) over an area of 4 miles by 1,000 yards: here the First Army had concentrated 400 tanks and a huge number of artillery pieces. When the attack came, scarcely a patch of surface escaped the rain of high explosives from above and from the land. The "carpet" was, in fact, a bomb distribution in which no enemy opposition was possible. "Every activity of man and machine beneath was smothered," as one expert commentator put it. "The nearest comparison is an artillery barrage. The most important difference is that a barrage takes time to build up, whereas a carpet is instantaneous. Bombers fly in such formation that they produce their lethal pattern where they will."

Tedder's carpet was, in fact, the initial cause of the breakthrough by our tanks: after their first objectives had been reached during successive stages in the Tunisian campaign, the tanks were again preceded by the bombers: following more air bombing, they were then able to fan out in all directions, and thus bring about the demoralisation and disorganisation of the enemy which led to the capture of Tunis and Bizerta and, soon afterwards, to the total surrender of all the Axis forces in North Africa

THE TASK OF THE R.A.F. WAS NOT AN EASY ONE, OWING TO THE WEATHER HAZARDS. Bad weather conditions persisted to the very last days of the campaign in Tunisia. Although the actual entry into Tunis was made in sunshine, heavy rains during the preceding days had alternated with "Scotch mists" to make flying conditions very difficult. It was frequently found to be impossible to carry out certain detail work allotted to various squadrons as they were unable to locate their targets. But whenever the weather lifted, the bombers and fighters went out at once. This drawing shows a scene at an advanced airfield as a British squadron of light bombers was returning after a fruitless endeavour to beat the weather—*Drawing by Roland Davies*



HOW THE R.A.F. ASSISTED THE 400 BRITISH GUNS TO BLAST A BREAK IN THE ENEMY'S LINES AT MASSICAULT (*See* also diagram on left). The scene depicted by our artist here was the turning-point in the whole Tunisian campaign. For, after the British break-through at this point, the whole Tunisian plain became ours; the final ridge before the city of Tunis was crossed; and the capital fell with little further organised resistance. Four hundred tanks had been massed in front of the Axis positions at Massicault and countless guns. But—in addition—100 British aircraft flew 2,000 sorties to (literally) blast a way through for the First Army (*See* notes on facing page)—*Drawing by Roland Davies*

TWO PICTURES TAKEN AFTER THE ALLIED OCCUPATION OF TUNIS which show some of the results of the R.A.F. bombing of the port. In the harbour there were many sunken and damaged ships, dockside installations and the power plant were wrecked, and there was considerable damage throughout the whole area. As shown last week, however, the business and residential sections of the town itself were practically undamaged

THE ENEMY'S HEAVY AIRCRAFT LOSSES ON THE GROUND as a result of shattering attacks by the Allied Air Forces just before the collapse of the Axis. This drawing shows a typical assault by our bombers on an Axis aerodrome, during the course of which many fighting and bombing aircraft were destroyed before they even took part in the decisive Tunisian battles—*Drawing by Roland Davies*

How the End Came in Tunisia (V)

The SWAMPING of the ENEMY'S AIRFIELDS by the ALLIES

Enemy air losses in Tunisia have been heavy and wastage has been terrific. According to Air Chief-Marshal Tedder, in a statement made a few days ago, 520 aircraft had been counted as captured—250 at El Aouina, 90 at Sidi Ahmed and 180 at Cape Bon aerodromes. Many of them were in good condition; but some were wrecked. Towards the end of the campaign, the destruction wrought by Allied bombers at Axis airfields must have been terrific. By driving the enemy farther and farther to the north, the number of aerodromes from which he could operate became fewer. Hence, towards the very end, whilst crucial battles were still nevertheless in the balance, the enemy's land forces were left with no air support whatever, as the remaining Axis aircraft had been forced to evacuate to Sicily—a Crete in reverse!

THE AIRFIELD AT EL AOUINA, NEAR TUNIS, is a remarkable tribute to the bombing and strafing of the Allied Air Forces. At a rough count, there must be the wrecks of at least 100 German aircraft, together with a few Italian. Many of them are large transport planes like the Ju. 52's seen on the scrap-heap in this picture

ON THE AIRFIELD AT SIDI AHMED, BIZERTA. Wrecked German fighters on their backs beside a damaged Ju. 52 troop-carrier and other transport aircraft. All the hangars and many of the station buildings were destroyed or damaged here in the fierce attacks by our bombers. Bomb craters were found on all the runways, and fighters and transports littered the landing-ground. Some of the abandoned aircraft had been deliberately destroyed by the Germans before their retreat, but most of the sixty-odd aircraft had been destroyed by Allied bombs or had crash-landed after being shot up in the air

THE AIR ATTACK ON THE SICILIAN PORTS MAY PROBABLY BE A "SOFTENING UP" FOR AN IMMINENT INVASION. The bombing of Palermo Harbour, showing the city backed up by the striking mass of Monte Pellegrino. This famous rock dominates one of the most beautiful bays in the Mediterranean. A very fertile plain, known as the Conca d'Oro surrounds the city—*Drawing by Percy Home*

SICILY COMES UNDER ATTACK

With the termination of the North African Campaign Sicily and Pantellaria have experienced a terrific onslaught by air and by sea

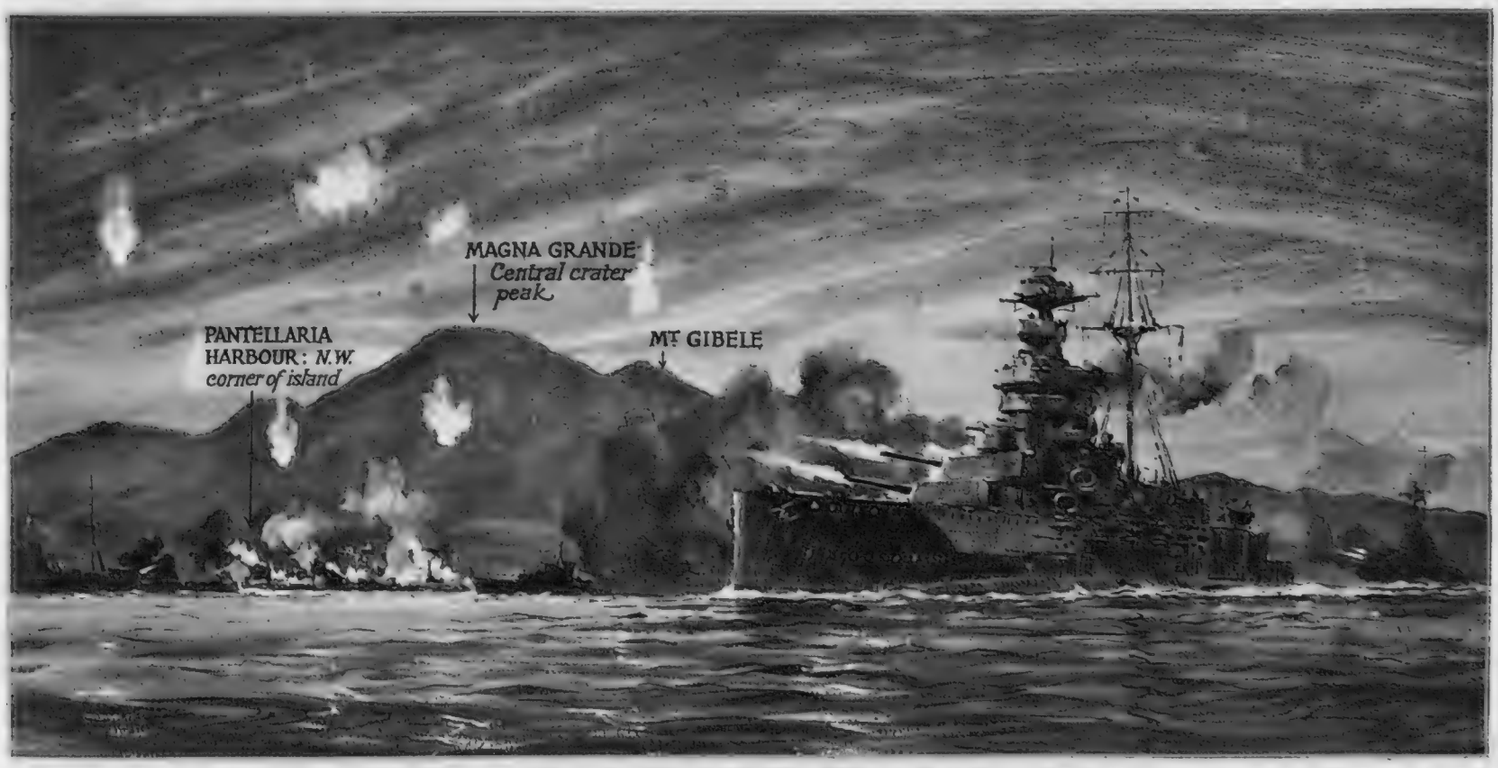
—*Two special* Sphere *drawings*

From the manner in which our attack switched to the island of Sicily the moment the campaign in North Africa came to a triumphant conclusion, it is possible that our next task might be an attempt to conquer, or "neutralise," that island. Heavy assaults have been made without cease on the island's air bases and harbours and communications; and prominent among the list of places attacked is Palermo. Here the fine natural harbour at the island's north-west corner was selected as a special target for 400 bombers: these dropped heavy loads on the harbour piers, shipping and dock equipment.

During recent years the capacity of the harbour has been considerably increased, with new piers to increase the quay-side capacity. Hence its interest to the Allied bombing squadrons! The evidence of history shows the importance of Palermo in relation to the control of the island. It was of importance to the Carthaginians, Romans, Normans and Spaniards. Its final linking with a united Italy did not come until its capture by Garibaldi in 1860.

Geographically, Palermo is dramatically placed within an amphitheatre of hills. Monte Pellegrino stands out as a striking mass of limestone towards the west of the bay. It looks down upon a fertile plain, the Conca d'Oro, bordered on the south by Capo Zafferano. The city itself lies on the flat ground of the plain, and is divided into four more or less equal parts by the two main thoroughfares—the Corso Vittoreo Emmanuele, which is intersected by the Quattro Canto. There is a fifth, and rather newer, residential area known as the Giardino Inglese, which lies to the west.

Midway to Sicily across the Narrows from Tunisia, lies the island of Pantellaria. This suffered badly in a bombardment from the sea carried out by the Royal Navy. For more than twenty minutes broadside after broadside screamed into the harbour, causing great damage to the mole and to shipping. Pantellaria, the "mystery island," was greatly boosted by Mussolini before the war: it has been a constant thorn in our side until now. It is probable that Pantellaria, isolated from both Tunisia and Sicily, will no longer play an effective role in this war!



THE NEUTRALISATION OF THE ISLAND OF PANTELLARIA WHICH LIES MIDWAY BETWEEN TUNISIA AND SICILY. The Navy subjected this rocky "fortress island" (of which Mussolini used to boast so often) to a bombardment lasting for twenty minutes. Twenty broadsides fell in the harbour area: it is now considered that, after the battering it has received at the hands of the bombers and the Royal Navy, the island is "out of commission" and its airfield wrecked. At one time, Pantellaria was the base for enemy fighters and bombers, submarines and surface craft, and it played a large part in the Battle of the Sicilian Narrows. In the event of an invasion of Sicily, doubtless Pantellaria would fall into our hands quite soon—*Drawing by Wm. McDowell*

THE FREEING OF THE MEDITERRANEAN NARROWS

The Work of British Destroyers and Submarines in the Sea which is Once Again Open to our Ships—*Special* Sphere *Drawings*

WHEN THE ROYAL NAVY SHELLED THE GERMANS WHO HAD RETREATED TO THE CAPE BON PENINSULA during the closing stages of the North African campaign just before Arnim's total surrender. Destroyers, taking advantage of their shallower draught, get close inshore to shell Ju. transport aircraft on the beaches: they are swinging in to discharge their fire at speed and then turning out again, leaving the planes burning behind them—*Drawing by Wm. McDowell*

During von Arnim's retreat to the Peninsula, light craft of the Royal Navy carried out an audacious surprise attack on the enemy positions and shelled some of the big transport aircraft which had been parked on the beaches for a possible "Dunkirk." Dawn was breaking when one of our patrols spotted numbers of Ju.52s on the beach. At the same time enemy batteries opened fire on them. Despite this, our destroyers sped towards the shore, holding their fire until within close range of the aircraft. When our gunners did open fire they had the satisfaction of registering several direct hits and seeing a number of the planes blow up. Then, still under fire, our ships turned about and returned to their base. This was not the only action in which our ships helped the campaign on land. Owing to the obstinate modesty of the Italian Navy, in none of these operations did our warships encounter opposition from enemy surface vessels!

On right—

A Destroyer's Second "Kill"

Early this year the *Hursley*, in company with another destroyer, sank an Italian submarine after it had been bombed and disabled by aircraft. The story of the *Hursley's* share in a second "kill" some weeks ago has now been told by one of the crew in the following words:

"It was a thrilling affair, and I saw the whole action from start to finish. When we arrived on the scene, the ship ahead of us had just dropped her charges. We slewed round, and if we had been another couple of degrees to starboard we would probably have rammed the submarine. She came to the surface not more than thirty yards from us, and it was just too bad for her that she came up at the wrong moment.

"They fired the throwers and charges from the chutes from our ship, the thrown charges landing within a few yards of the conning-tower, which was already badly twisted. She stayed on the surface for twenty or thirty seconds, slowly sinking as she drifted astern, finally disappearing amid the waterspouts. We swept round for about two hours, but finding no wreckage or oil, we set off to join the other ships which had taken part in the hunt. We were then told that another enemy submarine was hanging around, so back we went to the original scene of action, and this time we found a huge patch of oil, stretching for miles. We took a sample of the oil, tested it, and found it to be diesel, and obviously the submarine must have been hammered-up to have tipped that lot out."

In his account of the action, one of the *Hursley's* officers supplemented this narrative with the following statement:

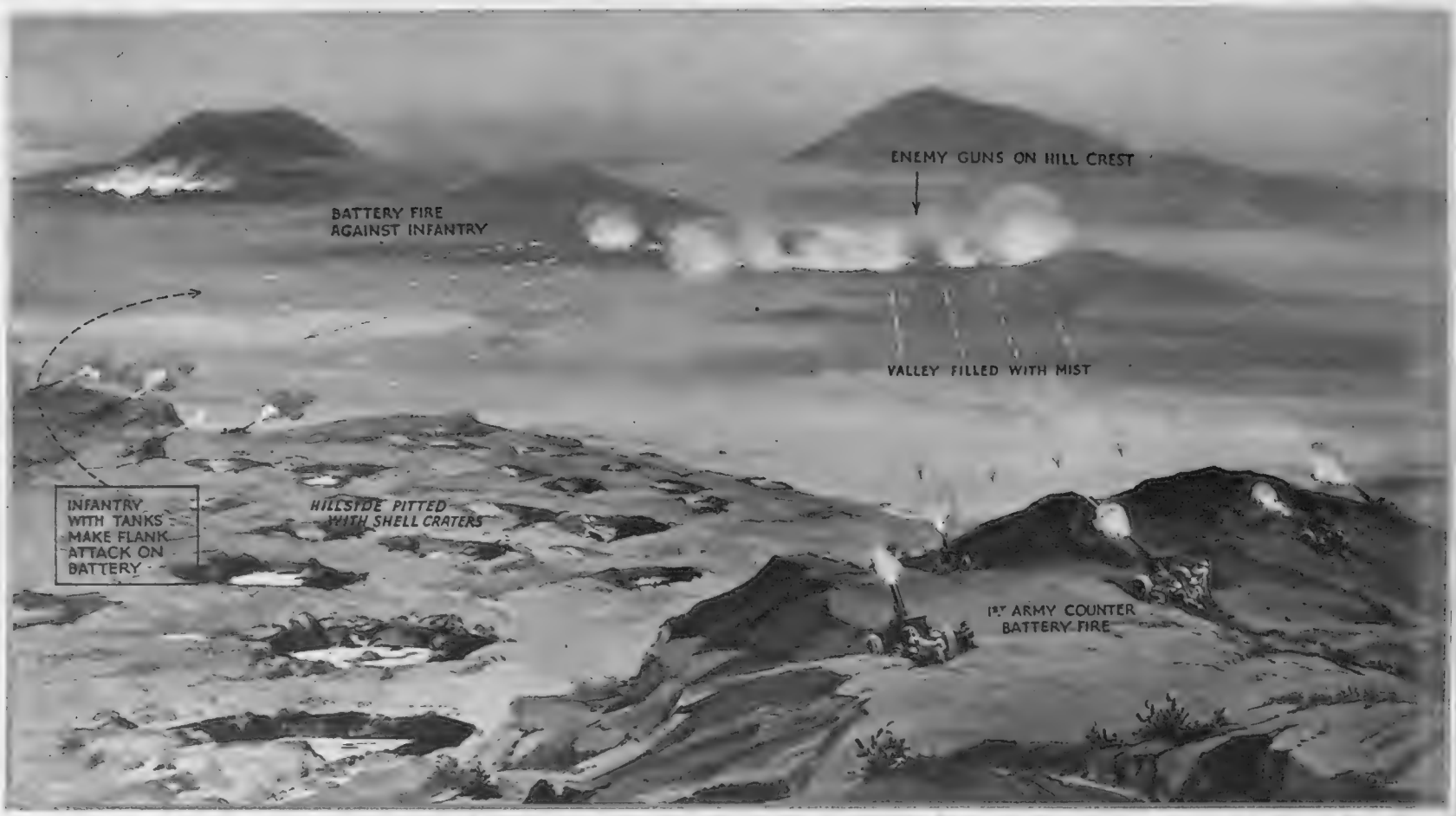
"Originally the submarine had been sighted by R.A.F. reconnaissance aircraft, and, in company with another ship, we were ordered to proceed to the indicated position. We were surprised to locate the submarine so quickly.

"I did not see the whole of the action, for, after we had made our first attack, I went down to my position aft to supervise the depth-charging, and could only see what was happening on my side of the ship. During the next twenty minutes the other ship made several attacks on the submarine. Then, after turning, we attacked again and dropped ten charges on her. We were just about to make another attack when the submarine came to the surface, but it was too late to stop our depth-charges going out. The starboard throwers straddled her stern, and after twenty seconds or so she disappeared. Her periscope had been blown off."

FOR THE SECOND TIME, THE HUNT CLASS DESTROYER "HURSLEY" HELPS TO SINK AN ENEMY SUBMARINE IN to proceed to the indicated position. The drawing above shows the moment when the gallant little vessel (Hunt class prepared to dispose of the

A BRITISH SUBMARINE NEAR THE ISLAND OF MONTE CRISTO (BETWEEN ITALY AND CORSICA) SCORES A TORPEDO HIT ON A LARGE-SIZED SUPPLY SHIP: The hit was followed by a heavy explosion, and the ship—apparently laden with ammunition and petrol—subsequently blew up. Other successful attacks were made by our submarines off the east coast of Corsica, where more Italian vessels were destroyed during the final days of the North African campaign. The truth is that the Mediterranean is now once again open to the British Navy and to the vessels under its protection, since the Italian Navy (more now than ever!) refuses to contest the waters round Italy. The submarine depicted in the above drawing is of the Thunderbolt class of 1,090-1,575 tons displacement: each of these cost about £350,000. All are of modern design and carry a complement of 53 officers and men—*Drawing by Montague Dawson*

THE MEDITERRANEAN: Originally the U-boat had been sighted by a reconnaissance aircraft of the R.A.F. In company with another ship, "Hursley" was ordered destroyers are modern vessels, but they only displace 904 tons—amongst the smallest of their type in the Royal Navy) arrived at the scene of the action and enemy submarine (*see* notes at left)—*Drawing by Montague Dawson*



GUNNERY TACTICS IN THE NORTH TUNISIAN CAMPAIGN, WHERE THE ARTILLERY ARM PLAYED A DECISIVE ROLE: At first the enemy made good use of the limited number of guns at his disposal and special enfilading assaults were necessary by British infantry and tanks to oust him from hill-crest positions whilst counter-battery fire engaged him from the front. The actions often took place in misty weather, which persisted almost to the last day of the campaign: the ground became pitted with shell-craters similar to those of the 1914-18 war. In the end, the great Allied gun concentrations won the day and caused the breaches necessary to allow the infantry and tanks through to the final victory—*Drawing by E. G. Lambert*

THE TRIUMPH OF THE GUNS

How the Artillery Came into Its Own during the Tunisian Campaign

—The Battle for Sites; the Types of Barrage; and the Stupendous Concentrations at the End

Described by DONALD COWIE

"RENOWN awaits the commander who restores to the artillery its vital place on the battlefield." Thus Mr. Churchill before the African tide of war turned in our favour; and it does seem that Generals Alexander and Montgomery have earned that renown. Their artillery dispositions at Alamein were unique in this war and won the battle. It was not till the First Army and the Americans adopted similar tactics—and General Alexander assumed command—that Tunisian victory was assured.

The North African terrain had already converted the campaign into a struggle for commanding positions—positions which could be used for gun-sites, from which artillery could dominate the narrow valleys and exposed plains. It was impossible to advance in strength till the hills had been cleared. The Germans did not possess superior artillery (their comparative neglect of the weapon in this war is their greatest weakness), but it does appear that at first they used their available guns with more imagination than us, seizing those heights and converting them into wheels of fire.

One or two German batteries on a hill-top could be pivoted to send shells like spokes of a wheel into the surrounding low country. They were protected against infantry assault by machine-guns, which filled the interstices between the spokes with short-range lead. The height gave the gunners all the advantage in observation, and they could usually concentrate fire on our low-lying guns as soon as they were tentatively dragged into position.

We adopted two methods to overcome these strong-points. The first was to establish counter-batteries on other hills. A slogging match would ensue with shells whistling across the valleys, while infantry, supported by the more agile tanks, would try to creep round the opposing hill in a wide arc and then assault it at night. The artillery would divide its attention between the enemy batteries and the creeping men and tanks. Gradually, we succeeded in this tactic, because we had the most infantry and were the attackers. Accordingly, our guns could concentrate on the enemy batteries while they had to split their fire, devoting much of it to a bombardment of our advancing men.

The alternative method of dealing with the hill-top guns of the German defenders was to strafe them from the air, but this was not so satisfactory, mainly because of the bad weather.

The obvious course was guns and more guns, till we had sufficient to blast the enemy batteries out of existence. At length several hundred modern pieces of ordnance were made available to the First Army and the American Second Corps. On May 1 an American battalion carried through a successful attack on one of the German hill positions that was typical of all. The hill was Jebel Tahent, blocking the road to Bizerta. The American guns suddenly ceased to aim direct at the enemy batteries and laid down instead a creeping barrage up the side of the hill, successively pounding the German machine-gun and anti-tank gun positions, the German infantry formations behind boulders and in caves, and finally the German big guns on the heights.

When the American infantry advanced, they found that all save a few of the small gun-nests had been destroyed. They stormed the remaining machine-gun posts with bayonet and grenade. Afterwards the captured hill was seen to be pitted with shell-craters, like "currants in a cake," though these were only a few inches deep in the solid rock, from which reverberations and ricochetting splinters during the bombardment must have been terrible.

The greatest concentration was effected on the famous May 6. Along a short two miles of overhanging hill-side near Medjez, twenty-seven miles from Tunis, the First Army assembled no fewer than 400 guns. That was approximately one to every eight yards, almost the wheel-to-wheel line-up of the last war, so close together that crews would be working as a continuous team. The forest of muzzles pointed ominously down at the southern Mejerda Valley below, where the last clear path to Tunis ran—and the last German defenders of Tunis prepared to run. Suddenly those guns spoke. The infantry afterwards mopped up pockets of Germans who miraculously escaped. The taking of Jebel Bou Aoukaz by the infantry—final hill in enemy hands—was a separate and vital operation, helped by the guns also. Our air squadrons provided subsidiary bombardment, particularly on fleeing columns beyond artillery range. But the crucial blow had been struck by that great barrage.

HOW THE AMERICANS MADE USE OF CREEPING BARRAGES in the attack on the Jebel Tahent, on the road to Bizerta. They ceased to aim direct at the German batteries and laid down, instead, a barrage which crept up the side of the hill: first the lower machine-guns were tackled, then the tank guns and enemy infantry, until only the big guns on the summits remained (*see article herewith*)—*Drawing by E. G. Lambert*

SOME of the NEWEST IMPLEMENTS of WAR

THIS IS AN AMERICAN MOBILE ANTI-AIRCRAFT POST. The gun is a 37 mm., mounted on a half-tracked vehicle, and is nicknamed "Duckshooter." It somewhat resembles the "Chicago Piano," or multiple pom-pom, of the Royal Navy

THE NEW GERMAN MORTAR-PROJECTORS captured at Medjez-el-Bab. These are a great advance on the ordinary mortar-thrower. Each weapon contains six large tubes for the projection of the devastating mortar bombs—a weapon which has been very prominent throughout the North African campaign. The tubes are fired electrically and the mortar has a range of several hundred yards

A CAPTURED GERMAN ANTI-TANK GUN, which is also used as a high-explosive bomb-projector. The bomb is a squat object, with a striking-pin in its nose: it is finned for steadiness during its long flight

A CLOSER VIEW OF THE BOMB in position for firing from the anti-tank-gun barrel. Apparently, the shaft of the fin portion fits over the barrel. This gun and its bombs were captured on May 6

A GERMAN TIGER TANK, ONE OF THE BIGGEST FIGHTING VEHICLES IN THE GERMAN ARMY, captured during the battle for Tunis. This monster, launched against an Allied front-line position, almost overran our defensive point before it was finally disabled. For all its armour and fire-power, however, the Tiger has not so far proved such a great success on the field of battle as the Germans had hoped

POWER FARMING IN BRITAIN

To-day, This Country is the Most Highly Mechanised of Any in Europe. What This Means to Agriculture is Here Described by CHARLES GRAVES

IT was Lord Woolton who said recently, "The consumer would have been in very sore straits during the last two years if it had not been for the farmers of this country. We should have starved. We should indeed have lost the war."

It was Mr. Hudson, Minister of Agriculture, who made the astonishing statement the other day that Great Britain is agriculturally the most highly mechanised country in Europe. In point of fact, the 1939 yields of wheat averaged 7 bushels per acre in the Argentine, 14 bushels per acre in the U.S.A. and Australia, and 12 bushels in Russia as against 34 bushels in this country. And in that year we had only 53,000 tractors and 200 combine harvesters compared with over 125,000 tractors in 1942 and 2,000 combine harvesters. Power farming has saved this country.

Power farming, so-called, affects all agriculture. Instead of the handling of the same sheaf four times—in stook, cart, stack and thresher—standing corn is now converted into grain in bag and straw on ground, thus cutting the man hours by 90 per cent. Put it another way. A pair of horses pulling a binder can reap and bind corn over 6 or 7 acres in one day. A tractor pulling a combined harvester can handle 18 acres in a day. These combined harvesters are so heavy that it takes ten horses to pull them if there is no fuel power to do the job.

It was in 1908 that the first British tractor, the Ivel, built at Biggleswade, was demonstrating the possibility of this form of farm haulage not only for ploughing but for harvesting. A handful of American machines were imported before 1914 and used by progressive farmers, but it was not until 1917 that the tractor strength of this country had increased sufficiently to enable the farmers to win the war against the U-boat. Henry Ford is owed a great debt for this.

After the war the unexpected repeal of the Corn Production Act caused British agriculture to collapse. Huge numbers of farmers gave up arable farming and millions of acres went derelict. A few farmers, however, decided that if production costs could be reduced tractors could enable arable farming to survive. A few tractor manufacturers served them—a vital factor in 1939.

The introduction of power farming meant that the farmer had to be taught a new technique. It is strange, however, that even now the tractor driver has no official status in respect of wage rates, although his output is so much larger and he is enabled to work much longer hours. It is true that in the last ten years the minimum wage for agricultural labourers has doubled—to £3 a week—and the change represents graphically the transition from horse farming to power farming. But still higher wages will have to come soon.

The power-operated plough is as a rule a multi-furrow implement comprising two to six plough bottoms. Then there is the combined grain and fertiliser drill which sows artificial manure along with the seed through a separate feeding device. There are, too, many power-operated potato planters, the working of which is more or less automatic. Plant-setting machinery is extremely ingenious and has surprised even the experts, for it shows that it does the job better than manual labourers.

The layman probably imagines that power farming is not concerned with grassland or the live-stock industry. And yet, in spite of the conversion of millions of acres of grassland to arable, we have maintained our output of milk. (Last year we drank 200,000,000 gallons more milk than in 1938.) On the arable dairy farm, pulse and cereal crops, kale and roots can be grown cheaply with tractor power. The modern milking machine is no longer a novelty. It is so constructed that the milk can be extracted from the udder, delivered to the cooler and from there into bottles without ever being exposed to the outside air.

WASTE LAND RECLAIMED IN THE FENLAND, where thousands of idle acres, once considered useless, have been reclaimed since the war began. Some are already yielding rich returns, others are still in process of transformation. Above, the "Buckeye Digger," or Excavator, is making a drainage ditch 1 ft. wide—very necessary in the Fenland districts

not bad enough to be classed as derelict. Waste land has been cleared of bushes, bracken and gorse, and when cultivated has yielded bumper crops. Since 1939 we have mole-drained and tile-drained 400,000 acres; while the ditches serving nearly 250,000 acres have been cleared out and small arterial drains, affecting about 1,500,000 acres, have been put in order.

The tractor has helped to produce other crops besides food. Large supplies of flax have been grown. Straw is being supplied for the manufacture of paper and experiments with rubber-producing plants are now taking place. But it is food which chiefly affects us, and it is almost entirely due to the tractor that this year we will provide three-quarters of the food necessary for this country, instead of one-third as in peace-time.

Nineteen hundred and forty-three is expected to produce the biggest crops in the history of this country, far more than the 80,000,000 tons harvested last year. Unfortunately, however, we have not yet got enough combined harvesters and other machines for bringing in the crops. In fact, this country has not yet mechanised the harvesting process to the same extent as it has mechanised cultivation and sowing. Thus it is that half a million civilians are required to bring in the gigantic harvest of wheat, barley, oats, potatoes, sugar beet, cherries, currants, raspberries, plums, apples, and the like. The situation is further aggravated by the fact that last year large numbers of troops were stationed in this country and could be used for harvesting between training periods, as they awaited invasion.

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this publication should not be taken as an indication that they are necessarily available for export

Even the work of shifting sheep hurdles for the folds is cheapened by the general utility of the tractor equipped with a trailer on which large quantities of hurdles can be moved quickly. The supply of water to fields with no natural or pipe supply can be effected by hauling it in large tanks mounted on trailers behind the tractor.

Many processes on a farm call for stationary power and here the tractor comes into play once more with its belt pulley for threshing, grinding and pumping.

Reclamation work has included the cleaning of thousands of acres of neglected land

A MODERN MECHANICAL DEVICE is brought to bear on an apparent wilderness, and rich arable land eventually results. Here the Gyro Tiller is clearing bushes at Whiteleather Lodge, in the Fenland district

by the roots but shake them free of stones and earth and leave them neatly on the surface.

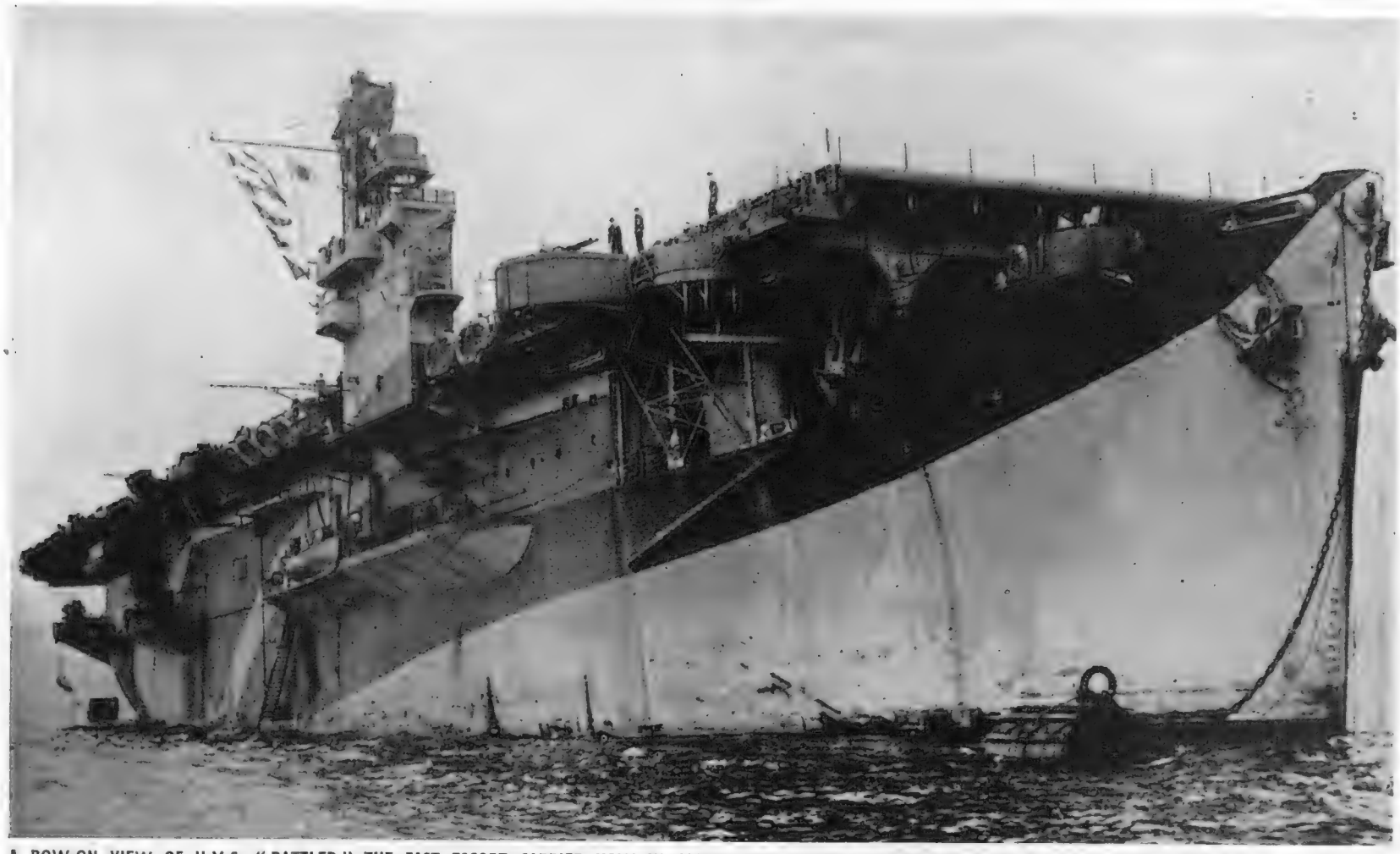
This year it is presumed that we will have invaded the Continent and this military man-power will not be available. To what extent agricultural leave to Home Guards in the countryside will have to be given in a very big way, I don't know, but it is essential to have at least half a million volunteers for the coming harvest. There are two schemes which are by no means fully known to the public in this connection. One is for schoolboys, with their masters as foremen and overseers. The other is for adults. As I write, the poster campaign in connection with this has not started, but I have seen a number of advance posters. These point out clearly enough the urgent need for volunteers.

Volunteers who wish to show their patriotism will receive all details of transport, feeding and the like by return of post. In this way, office workers and others in great cities like London will have the opportunity of selecting that county which offers the most attractive work and surroundings—anywhere from Hampshire to Kent, for example. According to the county, and again, according to the time of year in which they can take their leave, so they will be able to choose the type of work they want to do. No doubt many will plump for fruit picking rather than potato pulling. It may be pointed out, however, that, thanks to the mechanisation of agriculture, the backache has been taken out of harvesting even sugar beets. In the case of potatoes, there are multiple machines which not only pull them out

Every possible comfort that can be provided in the way of accommodation, food and drink will be supplied to volunteers this summer, and those with large appetites may like to know that if they spend their holidays in this patriotic way on the land (the minimum period is four days), they will receive a double meat ration, almost double the cooking fats, and a double cheese ration.

In conclusion, perhaps the most satisfactory aspect of power farming is that the thousands of troops in the Royal Armoured Corps, the Royal Army Service Corps and the Royal Electrical and Mechanical Engineers will find that if they wish to go on the land when demobilised after the war, their experience in driving tanks, armoured cars, lorries, and the like will make them admirably suited to agriculture as it is now, and as it will be still more in peacetime. Instead of ploughing half an acre a day with a horse and feeling that the whole field will never be completed, the up-to-date farmer and his assistants can do three acres. And once again, it must be repeated that it was the low capacity of the horse which held down the level of farm wages. All that will alter after the war.

P.S.—I would like to drawn attention to an admirable booklet entitled, "Tractor versus U-Boat," by D. M. McHardy, which gives much more detail about power farming.



A BOW-ON VIEW OF H.M.S. "BATTLER," THE FAST ESCORT CARRIER NOW IN OPERATIONAL SERVICE IN THE ATLANTIC "GAP." Originally laid down as a cargo vessel, "Battler" now houses a good number of Seafires and Swordfish aircraft. The view above shows the bridge superstructure and sponsons on the starboard side of the vessel and the turrets for her anti-aircraft armament

THE COMING OF THE "ESCORT CARRIER"

A Fast Vessel of New Type Built in the U.S. for the Protection of the Atlantic Convoys in the Mid-Ocean "Gap"

These pictures show H.M.S. *Battler*, American-built cargo vessel converted to carry aircraft to protect the Atlantic "gap," the 600 mile stretch in mid-ocean not at present capable of being covered by shore-based planes. *Battler* is of all-welded construction, largely pre-fabricated: she was ordered by the U.S. Maritime Commission and built in a shipyard at the mouth of the Pascagoula River, on the Gulf of Mexico. A dozen or more vessels of the same class will soon be added to the Royal Navy for similar duties. Although her flight deck seems small by comparison with the big aircraft-carriers of the Fleet, *Battler* carries a surprisingly large number of Seafires and Swordfish, with a ship's complement of 520-70 officers and 450 men. Much of the vessel's complicated gear is secret: she is fitted with every device so far evolved for war against the U-boats. *Battler*'s speed is generous, and she carries a good anti-aircraft armament. The ship's company arrived in the United States in the early summer of 1942: after short visits to New Orleans, Norfolk and Brooklyn, the ship crossed the Atlantic. Additional English equipment was fitted here, and a strenuous "working-up" period was completed to enable *Battler* to take her place as an operational unit with the Navy

CAPTAIN F. R. M. STEPHENSON, R.N., in command of the escort carrier, who was formerly in H.M.S. "Ark Royal"

MEN AT THEIR GUN STATIONS JUST BELOW THE FLIGHT DECK. Immediately behind is the Control Tower, and on the right are some of the Swordfish—torpedo-spotter, reconnaissance aircraft—which the "Battler" carries

A STERN VIEW OF "BATTLER," showing her comparatively small size. The construction of the vessel has been facilitated by welding and by the modern method of pre-fabrication

The World of Books—By Vernon Fane

THE WAR ON LAND AND SEA

A Cruiser Epic; Bromfield versus the Boche; The Fifth Column Reaches Bloomsbury; Miss Sitwell Reflects and Ponders

MR. C. S. FORESTER is supreme in his field: the dramatic, ingenious and poetic presentation of British sailors on the high seas. In the past, his novels (for he is essentially a writer who is happiest in the elastic bounds of imaginative fiction) have ranged in period over the Napoleonic and Peninsular wars. They have always been based on fact and on immense research, and the imaginative factor has only been used as it could best accentuate the dramatic possibilities.

In his present book, Mr. Forester has a tale to tell of a British light cruiser taking part in a Mediterranean action and forming a strong part of the protection of a Malta convoy. THE SHIP (Joseph. 8s. 6d.) is dedicated "with the deepest respect to the officers and ship's company of H.M.S. *Penelope*."

There is a compactness, a kind of watchmaker's precision, about the construction of this book which is completely in harmony with the workings of the ship about which he is writing. The mechanical complexities of a present-day cruiser seem infinite to the layman, but it has been Mr. Forester's genius not to simplify such matters, but to clarify them, to make them vitally interesting.

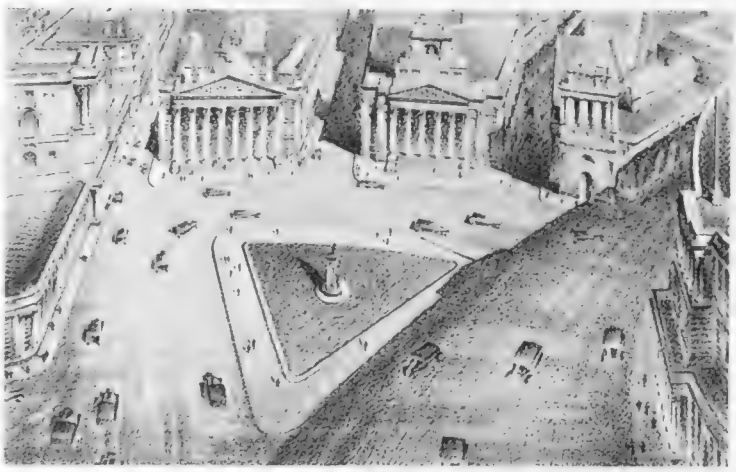
From beginning to end, the ship and all her company are in action, yet the book covers only one long afternoon out of many such days of battle. The morning had been spent fighting off attacks of enemy aircraft; afternoon and the remaining daylight hours in action against Italian ships of the line, of which, parenthetically, the author writes: "It was just like the Italians; when they decided to call their battleships after Italian victories they soon found themselves running out of names."

Nevertheless, the Italian ships were assembled in force and constituted a real menace. The cruiser's task was threefold: to protect the convoy, to attack the enemy and to provide gun-cover for the swift, but more vulnerable, destroyers, till they could get within torpedo range of the enemy. The course of the book follows exactly the course of the battle, with a fragment of the captain's report as each chapter heading, but each phase of the fighting is observed from a different station in the ship. Sometimes it is from the bridge, where the captain fulfilled that dictum that "toughness was only one essential requisite in the make-up of a cruiser captain . . . courage was common enough . . . but it had to be combined with everything else, with moral courage, with the widest technical knowledge, with flexibility of mind and rapidity of thought and physical endurance."

I read this book at one sitting, although it nearly proved to be an all-night one. I don't necessarily recommend this intensive system, but I do most heartily recommend your reading the book itself.

REPLANNING THE CITY OF LONDON: Mr. Harold Baily's plans for the rebuilding of the St. Paul's area—*On left*—the Cathedral, from the south: the view from Queen Victoria Street. *On right*—The main entrance to St. Paul's, from New Bridge Street, showing the new Ludgate Hill

ST. PAUL'S AS SEEN FROM THE WEST, with its new surroundings. According to Mr. Baily's plans, the famous Ludgate Hill Church would remain in its old place



THE BANK AREA, showing the Royal Exchange and the new front to Lloyds Bank to match: another of Mr. Harold Baily's plans

The four drawings above were made by Mr. Harold Baily, F.R.I.B.A., to show his ideas of how the City of London area might be replanned after the war. The City, he contends, must remain a commercial centre: but he would set St. Paul's Cathedral in a great open space, with its main approach by means of a wide, processional avenue to the West Entrance. He has also sketched out a plan for the Bank area, showing how this centre can be replanned on more spacious lines. Other of his suggestions include designs for the Guildhall, London Wall and other historic places

Paris occupied by German troops, seemingly quiescent, yet seething with underground rebellion, is the theme of Mr. Louis Bromfield's new novel, UNTIL THE DAY BREAK (Cassell. 8s. 6d.). Although Mr. Bromfield left his home in France for his home in America many months before the fall of Paris, he knows France well, and remembers its capital with affectionate accuracy.

As with all this writer's recent novels, this one is a "natural" for the films. It has all the ingredients: glamour, suspense, the patriotic motive, violent action and opportunities for luxurious sets. As a novel, it has the pace and urgency of a good film, though less of the emotional force that such a film might have.

Roxie Dawn is an American girl from a little Middle-Western town who has won fame as a dancer in the Paris music-halls. She is lovely, but she is tough—as tough as her lover Nicky, who is an irresponsible half-Russian, wholly Parisian opportunist. Two things happen to this couple: they fall deeply in love with each other, unprepared by their sophistication for the depth of their feelings; and they see the city which has meant more to them than their own countries invaded by a race of "sad, depressing animals."

Roughly speaking, patriotism comes in at the door and self-interest flies out of the window. Nicky engages on the most dangerous type of underground work, and Roxie, at first to help him and later to satisfy her own instincts of justice, plays an equally hazardous double game with German officers.

What happens to them and to their associates may be part of the history of Occupied France, or it may not. In either case, it is very good Bromfield.

Of all contemporary novelists, I think that none so surely leaves his imprint on his work, so that without any title-page or other indication one could never be mistaken in its origin, as Mr. Graham Greene. THE MINISTRY OF FEAR (Heinemann. 8s. 6d.) is a story of Fifth Column activities which has absolutely nothing in common with Mr. Bromfield's slick tale of sabotage. It is another of those stories in which Mr. Greene compels the reader to follow the activities of a group of thoroughly unpleasant characters, and, what is more, to follow them with a breathless, line-to-line interest.

In this case, the whole of the book has an atmosphere of horror which grows more intense from chapter to chapter, and yet never quite passes the bounds of possibility in the world as we know it now. The central character, Arthur Rowe, is a one-time journalist who is medically exempt from active service. He leads a lonely life in Bloomsbury on just enough money to support himself. At a charity fair in one of the Bloomsbury squares one day he goes in for a competition to guess the weight of a cake, and wins the cake as the result of his try. From that moment on he is implicated in the affairs of a group of people, dubious in reputation and dangerous in practice.

The cake proves to be the cache for a message from one branch of a spy organisation to another, although Rowe never has conclusive proof of this, or of the organisation's constituents, until the very end of the book. In all these machinations, he is the one sympathetic figure, although himself a border-line mental case, and, as might be expected, the story's conclusion, while it respects the dramatic unities, is not one of unclouded happiness.

Every successive incident in the chain of this brilliantly constructed novel is highly dramatic. It would be difficult to say with sincerity that one had enjoyed this book; one can, however, respect its writer, and give him the tribute of some sensational hours of reading.

Miss Edith Sitwell, by the publication of her own notes on the nature of poetry, has let the reader in to a private world of exquisite sensibilities. A POET'S NOTE-BOOK (Macmillan. 10s. 6d.) is both a miscellany of extracts that have given her particular pleasure and a series of entries as they have occurred to her, on poets and their peculiar qualities. Many of her observations are concerned with poetry in a purely auditory sense, and these are the most detailed, sensitive and elaborately analytical.

There is humour here, too, as witness this passage:—

"Furious old lady, complaining of my own poems: 'Words, Words, nothing but Words.' Not *only* words, my dear lady. Yet see what only words will do for us. Compare these lines,

'And we 'll gang nae mair a-rovin,
A rovin in the nicht,'

from 'The Jolly Beggar,' by James V. of Scotland, and the final lines of Byron's 'We 'll go no more a-roving,' a poem that begins with lines which are almost those of King James, but ends with

'Yet we 'll go no more a-roving
By the light of the moon.'"

This is a rare little book, not perhaps to be read at one sitting, but to be studied and pondered.

Miss M. G. Eberhart and her pleasantly acidulous Nurse Keate are at it again. WOLF IN MAN'S CLOTHING (Crime Club. 8s. 6d.) is the first of Miss Eberhart's mystery stories that I have read for many months, and I was beginning to fear that the world conflict was taking her mind off more localised scenes of murder. However, all is well, and this is certainly one of her better efforts, sometimes recalling, though not too closely, the work of Mary Roberts Rhinehart.

Plots and sub-plots hatch and thicken as our weary pulses quicken, and everything, in fact, is dandy. The author has no prejudices in favour of one method of murder against another, and slits throats and poisons with masterly impartiality.

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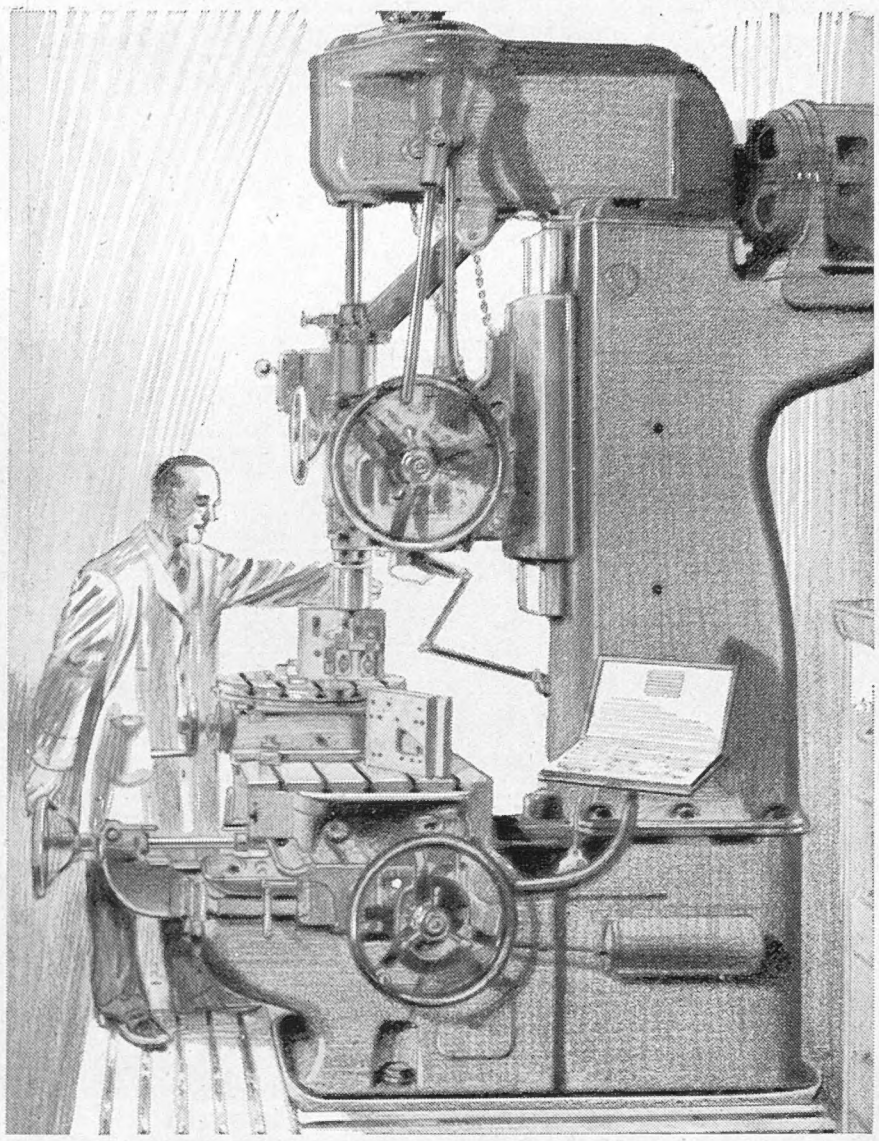

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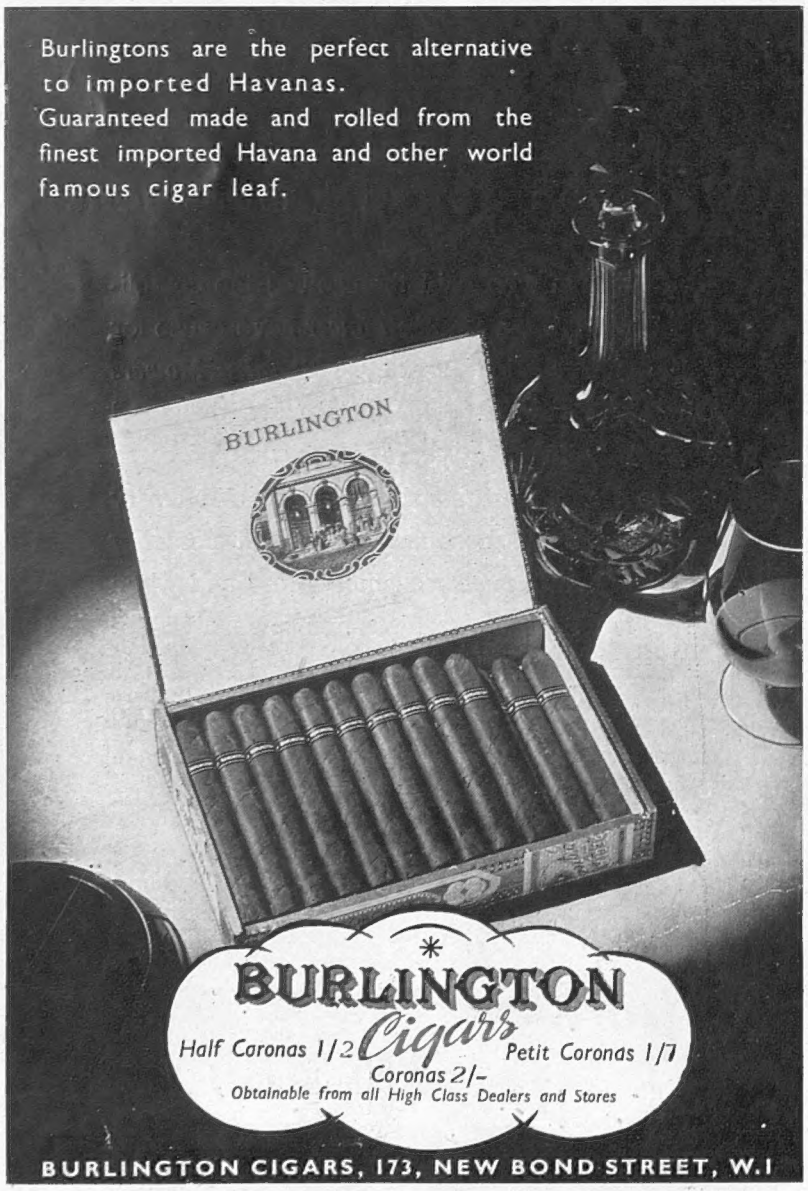

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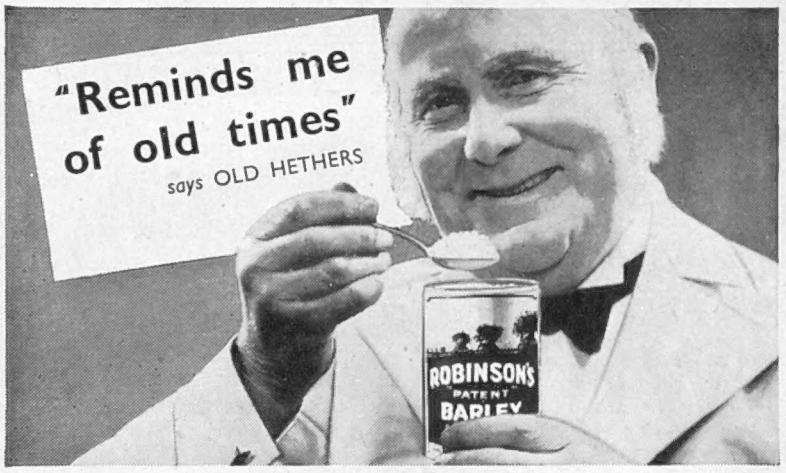

". . . when we all used to make my famous barley water at home. You see, the war's put a stop to Robinson's Barley Water in bottles, and I'm back to Robinson's 'Patent' Barley in tins. Not that I mind, for it's as easy to make as a cup of tea, and the same as the kind that went into the bottles. I allow that flavouring puzzled me a bit, now that I can't get hold of lemons, but experience teaches, as they say, madam, and I've learned a trick or two. Juice from stewed or tinned fruit is very good, of course, but would *you* have thought of honey or jam—or, better still, a dash of lemonade powder, if you can get it? See if you can beat me at my own game, madam, and invent some flavouring yourself."

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Extract from an account of recent fighting in North Africa in "The Nottingham Guardian".

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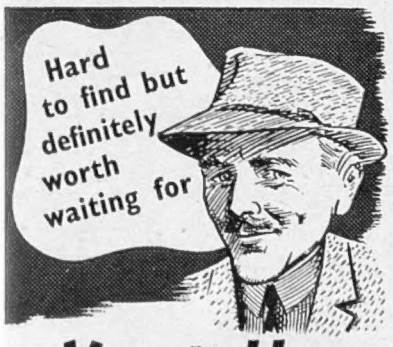

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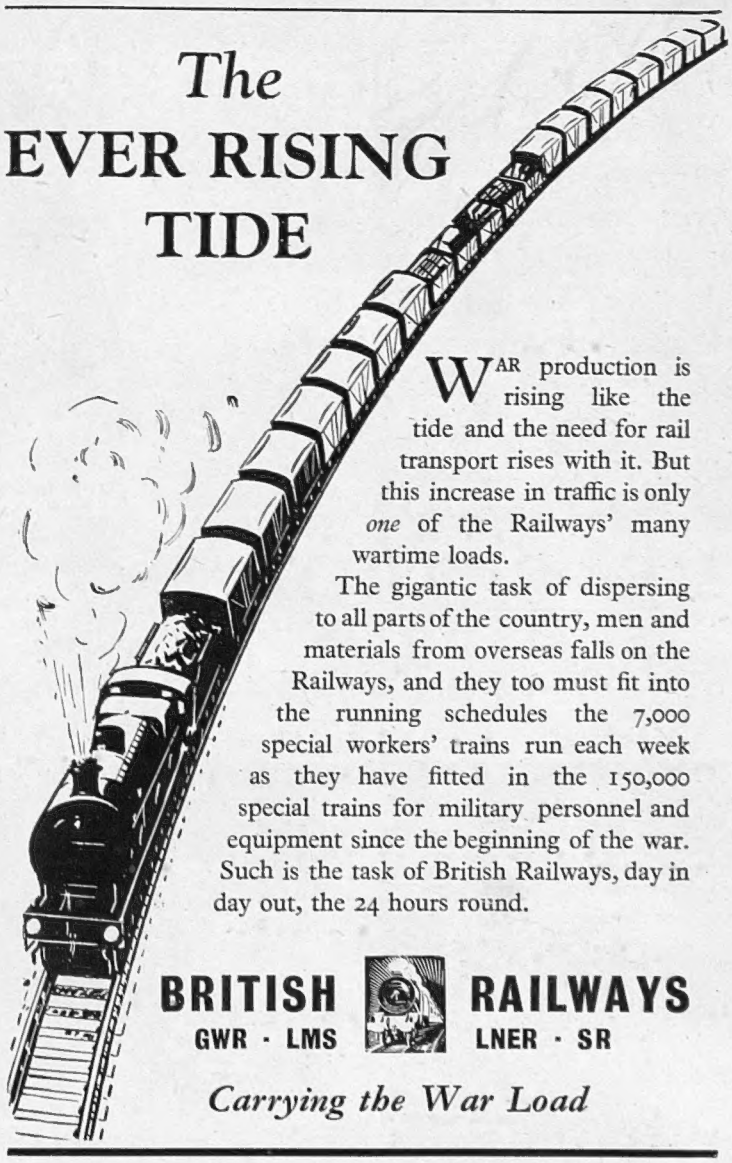

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